

THE NATIONAL WOOL GROWER

Official Organ of the
NATIONAL WOOL GROWERS ASSOCIATION

VOL. XIX.—No. 5

MAY, 1929

Published Monthly at 509 McCornick Building, Salt Lake City, Utah, by the National Wool Growers Association Co., Inc.
F. R. Marshall, Editor; Irene Young, Assistant Editor

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SUBSCRIPTION RATES

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To non-members in the United States and Canada, \$1.50 per year; foreign, \$2.00 per year.

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EDITORIAL

Making Wool Prices

THE COURSE of this year's affairs in selling western wools seems to be less of a departure from the trend of other years than was looked for last month. There has been no extensive preshearing contracting but the character of the business done on shorn wools has so far been very similar to that of other years.

The apparently unanimous plan of the buying interests to operate at their own idea of prices has been adhered to, though it is possible that the prospect of profit on wools bought at recent figures may bring a more satisfactory condition for growers as the season advances.

It is true that the course of Boston quotations has been depressing; but it is improbable that growers sufficiently appreciate the fact that at this season there can be no very extensive sales of domestic wools at that market. Nor do growers appreciate, as the conditions warrant, their power to establish prices in the West that largely will govern the price level for the balance of the year.

It is likely that this year will see a material increase in the volume of consigned wools. Such a development should be advantageous—if those who sell consignments cooperate, and if they control a sufficient volume to enable them to be a real factor in making the prices that are to prevail. With the usual proportion of wools at the market under speculation, the same conditions may prevail that have before caused sales to be made at such low prices as will return a small profit without regard to the basing of prices on the parity with foreign wool—the value of equivalent foreign wools, plus the tariff. Such action may be repeated under a period of a strengthening trend abroad as a result of buying at low figures in the West and the anxiety for a quick turnover of speculative stocks.

Plainly what the wool growers need and should bring about themselves, is the placing at the market of a large volume of wool to be sold by competent men who have no speculative interest and will work at all seasons on the selling side of the market.

A Stabilized Lamb Market

DURING four months of this year the price for a good class of fed lambs sold in the wool has remained steadily in the range of 16 to 17 cents. There have been higher spots and some fluctuations within the range mentioned, but the record can be considered as reflecting unusual stability at a level that is helpful to the producing interests, though, as referred to in the April Wool Grower, there have been some complaints from the distributing agencies.

The feeders who have enjoyed this good market are located in several states, but those of Nebraska and Colorado are best organized. If all those connected with these organizations had lived up to the plan which it was attempted to follow, the fluctuations undoubtedly would have been still less numerous and severe. As it has been, the price has had a steadiness that is greatly in contrast to the condition that always prevails during the range shipping season. The experience of the feeders is well calculated to excite the envy of the range shippers and promote study and thought by them.

The problem of distribution and regulation of the flow of receipts is necessarily much less difficult when attempted by the feed-lot operators than in the case of the great number of widely scattered producers who ship from the range states, principally in September and October. In a representative week of last month, the official figures showed that Scottsbluff (Nebraska), northern Colorado, and Arkansas Valley (Colorado) sections shipped 65 per cent of the total receipts at Chicago, Omaha, St. Joseph, Kansas City, and Denver during that week. The percentage would really be materially higher because of the fact that at this time of year the Chicago market receives and counts a good many lambs that have already appeared in the official records of the Denver market. Also, it is worth considering that some of the market receipts, especially at Chicago, include a large proportion of directs and these shipments are usually considered as adding materially to the difficulties of the selling agencies in making prices. It is evident, however, that the total supply available so far this year and the rate at which it has been delivered and distributed among the different markets have produced a very steady market. Those who ship lambs in the winter months also have some advantage in the fact that at that time the markets are receiving comparatively small numbers of feeder lambs and the bulk of the supply is of a character to go direct to the packers. While there is argument on both sides of the question of the influence of feeder supplies upon fat lamb prices, yet the records of the years and various markets strongly support the idea that price-making on fat lambs is complicated and rendered more difficult for the sellers when total receipts are swelled by the arrivals of stock in feeder condition which must necessarily be returned to the country. However, the actual rate of slaughter in September of last year was materially higher than it has been in recent months. The Chicago and other market receipts were unusually high last September and October. The total federal-inspected slaughter of the country ran to 1,307,442 in the former month, and 1,408,753 for October. In January, while prices were strengthening, the slaughter figure was 1,150,011 and, in February, 953,226. The improvement in winter prices can not be wholly attributed to

CALENDAR

California Ram Sale, Sacramento, Calif.—May 21, 22, 23.
 Wyoming Wool Growers' Convention, Casper—July 18, 19, 20.
 Texas Wool Growers' Convention, Del Rio—July 31, August 1, 2.
 Texas Sheep and Goat Sale, Del Rio—July 31, August 1, 2.
 National Ram Sale, Salt Lake City—August 26, 27, 28, 29.
 Wyoming Ram Sale, Casper—September 17, 18.
 Pacific International, Portland, Ore.—October 26-November 2.
 American Royal, Kansas City, Mo.—November 16-23.
 International L. S. Exposition, Chicago—November 30-December 7.

a narrower ratio between receipts and actual slaughter. It is undeniably plain that the regulation of the rate of total delivery and the distribution of the daily and weekly shipments between the different markets, as principally done by Nebraska and Colorado feeders, have accomplished a great deal. While range men can not do so complete a job, it is possible for them greatly to improve the condition that usually exists in their principal shipping season and particularly to establish a better situation than existed last fall.

Closer contacts between shippers and their salesmen at the markets can accomplish a great deal by distributing the lambs more judiciously over the different days of the week and, in some cases, by diverting shipments while en route, from a market that has a prospect of an oversupply, to another point.

There is still doubt as to the wisdom of attempting to regulate loading dates in the range states with a view to avoiding congested conditions at the market. There is need for much study on the part of officers and members of the various state associations for the purpose of determining what line of action can be instituted in the shipping territory. It was very plain during a few weeks of last fall's season that Washington range men loaded altogether too largely within the same weeks, and also conflicted with a similar procedure on the part of Idaho shippers.

While a large degree of improvement

may not be immediately in sight, it is now time for shippers and association officers to canvass the question and decide among themselves as to practical steps toward improvement and toward providing better cooperation with their salesmen at the markets and with the buying interests, with a view to securing a larger measure of price stability in the fall markets.

THE FEDERAL FARM BOARD BILL

AFTER eight years of discussion, agitation, and study, legislation is assured upon the so-called farm relief question.

The first bills introduced in both branches of the Congress during the special session, have as authors, Senator McNary and Congressman Haugen, chairmen of the agricultural committees. The House bill was passed on April 24, and the Senate bill is expected to be voted upon early in May. This is expected to permit time for full consideration by the Conference committee and for the bills to become law in June.

The two bills are practically the same and their provisions carry out in full detail the general plans outlined and suggested by President Hoover before and subsequent to the election.

As reported from committee, the Senate bill includes the debenture scheme which is a thinly veiled substitute for the equalization fee that was mainly responsible for Presidential vetoes of former bills and which was rejected by the Republican Convention and, now, by an overwhelming vote of the House of Representatives. It is not expected that the debenture idea will be favored by a majority of the Senators or that it could be retained in the joint Conference Committee by which the differences between the two measures will be ironed out.

The provisions of this now imminent law are far-reaching and unusual in character. While they will be criticised by some as paternalistic, they are not really so and can not be characterized as economically unsound or unworkable, although they are frankly admitted to be experimental in a large degree.

The proposed facilities are designed to permit and enable producers of various agricultural commodities to set up and control the necessary number and kind of cooperative or grower-controlled systems and stabilization corporations. These various systems and corporations are to be supervised and coordinated by an appointed board having at its disposal, for use as a revolving loan fund, 500 million dollars of Government money. The plan is substantially as follows:

To create a Federal Farm Board. The House bill provides for five members with six-year terms at a salary of \$12,000; while the Senate bill calls for twelve members. No mention is made of the Board's being bipartisan. The Secretary of Agriculture would be an ex officio member. The President will name the chairman of the Board and determine his salary and term of office. The appointment of the other members would be by nomination by the President and confirmation by the Senate.

An advisory committee for each commodity is to be established; each of such committees to consist of seven members to be selected by the cooperative associations handling the commodity upon which the committee is to advise the Board. The Board is to prescribe the manner of selecting and naming such committees by the cooperators.

The duties assigned to the Federal Farm Board include:

1. Promoting education in cooperative marketing.
2. Encouraging the organization and development of cooperative associations (cooperative associations are defined as those qualified under the Capper-Volstead Act of 1922, and the Board may recognize and deal with other associations and corporations that are producer-owned and producer-controlled).
3. Publishing of reports as to crop prices, supply and demand.
4. Investigating and advising as to prevention of overproduction of agricultural commodities.
5. Making reports upon land utilization, need for reclamation projects, methods of expanding markets, and the effect of transportation conditions upon the marketing of agricultural commodities.

6. The making of loans or advances from the 500 million dollar revolving fund, at interest rates to be set by the Board and assisting in the effective merchandising of agricultural commodities and food products thereof, the acquiring of market facilities, and the formation of clearing house associations.

7. The insuring of cooperative associations against loss through price declines in commodities regularly traded in, upon an exchange, when such action is applied for by the advisory committee for that commodity and such service can not be secured elsewhere.

8. The recognition of, and making of loans, to, upon application of an advisory committee, a stabilization corporation for working capital to enable it to purchase, store, merchandise or otherwise dispose of the commodity. Such corporations must be organized so as to permit all of their stock to be owned by cooperative associations. Losses sustained by such borrowing corporations are to be repaid out of profits subsequently earned, but shall not be assessed against the stockholders of the corporation.

In the report prepared by the House Agricultural Committee and submitted with the bill, the following statements occur:

"We, therefore, propose, in the legislation we report today for agriculture, what has never been done for industry, and that is to supply it with the money it needs for the organizations it must have in the marketing of its product. And since we want the farmers of America to continue to own their own business, we will make the necessary advances to them upon terms that preserve their ownership and assert no claim on the part of the Government as the financing power to take the management out of their hands.

"Next, we propose not only to duplicate all of the machinery that industry enjoys in marketing—not only to furnish capital for this machinery, but also to give to agriculture a new kind of organization which industry neither has nor under existing laws would be permitted to have. This is what is called the stabilization corporation. As we have shown, it is impossible for agriculture to control its production and against the public interest that it should attempt to control it to the extent that industry can so control. * * *

"To prevent these speculative and seasonal depressions, we propose to permit the cooperative associations to set up stabilization corporations to which the Government will advance funds greater than can be mustered by the adverse speculative or trade interests, to protect the farmer in the sale of his commodity. We are convinced that no speculator will continue to sell short in a declining market in the face of a powerful organization backed by the Government which intends to lift off the market, if necessary, enough wheat or cotton, for example, to prevent the price being driven below the real value of the product. Such an organization should prevent the most disastrous of the farmer's troubles in the past—namely, that often his largest crop has produced his smallest return.

"We believe that the definite stamp of Government approval upon cooperative associations will materially assist their growth and instill confidence in the minds of the farmers in their methods and management. "We do not offer the bill which accompanies this report as in and of itself the sum total of agricultural relief. It is entirely

clear that such relief can be accomplished only by a program and not by a single bill. This program must, of course, include tariff revision which is now being undertaken under the guidance of the Ways and Means Committee which we believe will give a just consideration to the claims of agriculture; and waterway development, including a canal from the Great Lakes to the sea and the creation of a complete inland system based on the Mississippi River and its tributaries.

"These matters are not within our jurisdiction nor is the amendment of the Federal

THE TARIFF BILL

The Ways and Means Committee reported the tariff bill to the House on Tuesday, May 7. As submitted, the bill would increase the duty on lamb from four to seven cents, and the wool rate from 31 to 34 cents per clean pound. Wools coarser than 44's would be admitted at 24 cents. The recommendations of the National Wool Growers Association on the rates on wool wastes and rags were not accepted by the committee. The representatives of the association, on the ground that these commodities replace wool, asked that the duty rates be increased almost to equal the rates on wool. The committee in its report takes the position that wool wastes and rags do not displace, but supplement wool, and only slight increases in the duty rates on these commodities would be effective under the bill.

The committee also failed to adopt the recommendations included in the brief of the National Wool Growers Association that actual scouring tests should be made to ascertain the shrinkage of imported lots of wool.

The bill would increase the rate on dressed and canned beef to six cents; hides remain on the free list.

farm loan bank and Federal intermediate credit bank acts, which is sought by many of the cooperative marketing associations. We have no doubt, however, that all of these will receive adequate and careful consideration at the hands of the appropriate committees.

"We believe that this program avoids the difficulties on which past legislation has been wrecked. It is so clearly constitutional that we feel it unnecessary to attach a brief to that effect. It offers no subsidy, direct or indirect; the Government is not placed in business; there is no hint of price fixing or arbitrary price elevation; it requires no elaborate machinery and creates no powerful bureaucracy; it imposes no tax upon the farmers; it contains no economic unsoundness.

"It does propose to furnish temporarily the capital upon which agriculture can organize to own and control its own business. It embraces all agriculture without assuming control over the farmer. It offers the maximum help the Government can give. It contemplates the stabilization of prices. It requires the initiation of all action by the farmers through their own organizations and gives the board only advisory powers except at their request. It is in accordance with sound economic law. It is the best program that has yet been of-

fered for the relief of agriculture, not only from temporary emergency but from the threat of future disaster. It is—and should be—more than any government has ever offered in behalf of any industry. * * *

In the declaration of policy, as set forth in the first section of the bill, reference is made to "preventing and controlling surpluses in any agricultural commodity," but in the other sections, which relate to handling and financing of agricultural commodities, no mention is made of surplus crops or commodities. Apparently the activities of the Board include the marketing of wool or any other agricultural commodity whether or not produced in surplus amounts, if the producers are sufficiently organized to claim and utilize the facilities and services which the bill is intended to provide.

THE NEW LAMB CHART

Our cover this month carries a reproduction of a chart that is being printed in Chicago for use in the lamb promotion work during the coming months. The chart was prepared primarily to answer the requirements of teachers of home economics and a large supply has been reserved for distribution to high school and university classes in cooking. The chart will also receive distribution in the meat trade; Swift and Company have already purchased a large supply for use in their advertising work.

A number of trade papers have featured the chart in their recent issues: such periodicals as the Butcher's and Packer's Gazette, the Mid-west Hotel Reporter, Cafeteria Management, International Grocer, and the National Grocers Bulletin are included in the list. In connection with the reproduction of the chart articles prepared by Miss Inez S. Willson, director of the Home Economics Department of the National Live Stock and Meat Board, on cutting lamb for profit have also been appeared.

A unique use of the chart is likewise being made by Mr. Hartzell in his lamb demonstrations, as referred to in the report of the lamb work at Cleveland, Ohio, appearing in this issue. This consists of building up the chart with the actual cuts as he makes them.

AROUND THE RANGE COUNTRY

THE notes on weather conditions appearing under the names of the various states are furnished by J. Cecil Alter of the U. S. Weather Bureau, and based upon reports and publications of that bureau.

The letters are from interested readers. The Wool Grower welcomes and desires such communications from any part of the country and also invites comment and opinions upon questions relating to the sheep industry and statements of occurrences of importance and significance to wool growers.

WYOMING

This was an exceptionally bad month on livestock, temperatures being low and snows frequent, and in places heavy. The month closed with one of the worst storms of the winter, the first of May showing a general storm period ending with snow generally over the state. This last storm was of such short duration, however, that livestock losses were comparatively light, except in a few scattered herds, especially in the southeastern portion. Shearing was hindered in all sections. Ranch lambing was completed, with favorable results; range lambing is getting under way generally. Range grass is backward everywhere.

Bondurant

Early spring weather was stormy and windy and hard on stock, but it has moderated now (April 9). Losses in sheep have been about the same as usual and feed has cost us about the same. Hay, native and timothy, ranged in price from \$6 to \$8 last fall; there is no surplus now.

Nearly every one will feed all he has, as the indications are that spring will be late and we started to feed early last fall. We hope the spring range will be good; we still have three feet of snow.

A few more ewes may have been bred to lamb this spring, but no great number. Nearly all of the feeder lambs have been contracted at 12½ cents. About the same number will be shipped out, although there is an increasing tendency to hold the ewe lambs.

The few sheepmen that we have talked

to on the subject of wool marketing seem to be satisfied with the present policy, but we are personally in favor of community pools, combined with a national corporation.

The Biological Survey has been doing excellent work and giving satisfaction generally. On this account and because sheepmen are taxed so highly now, the payment of bounties on predatory animals is opposed.

Griffiths & Wertz.

MONTANA

It has been a little too cool for the best growth of pastures and ranges, but nevertheless the outlook is good, and livestock are in fair to excellent shape as a rule. Lambing is nearly completed in some sections, with good increases and few losses. Grass is still too short and thin for pasturage, but many flocks and herds have been turned out to forage. A few cattle are reported thin, but seem to be strong and in satisfactory condition. Light feeding continues in many places.

Whitlash

We have had an unusual amount of snow and still have at this time (April 11). Our sheep, however, are in good condition, though ticky. We have fed heavily all winter and are still doing so. There was an unusual amount of hay in the county; very little sale for hay here usually. Our winter losses were light.

A division of opinion exists here in regard to the proper way of handling the coyote problem. We formerly had the Biological Survey trappers at work. They cleaned out the wolves and decreased the number of coyotes, but during the last two years they have not put in an appearance. Personally, I am in favor of a high bounty, continually. Years ago a high bounty nearly cleaned up the coyotes, but it was removed—probably so that more coyotes could be raised.

T. R. Strode.

IDAHO

Cold, backward spring weather prevailed through the month, though the closing week was much milder and grass made a good showing. Cattle and sheep have mostly been put on the range, though a few are still on feed in the more elevated areas. Some livestock are on range at Malad; and many cattle and sheep are on range at Pocatello, with pastures improving. Livestock are only fair in Boise County, and fair or poor around Montpelier. Cattle and sheep wintered well at Oakley, but hay is scarce and range grass slow. Lambing progressed with pretty good results, only a few local losses being reported.

Howe

April was cold and backward, more so than for twelve years.

There have been a few more shed lambers this season, but May lambing will be of the usual size. The early lambs are going out rather thin because the ewes have had to be held in the feed lots so long. The ewe loss is figured at from one to one and a half per cent.

The idea of cooperative marketing being applied to wool is growing in popularity. Few sheepmen in this district are attracted at all by the thought of putting a leasing or permit system into effect on the public domain.

Sheep loans are being made at 8 per cent.

David Bethune.

OREGON

Spring is backward, and warmer weather is needed for pastures and ranges. In places a little rain would not hurt. Pastures have made appreciable improvement in the past week or ten days, but in places they are still inadequate for livestock. Hay crops are also late, though now making good growth. Sheep shearing was delayed by low temperatures, and some loss of lambs was reported; but in most sections livestock are improving.

(Continued on page 38).

LAMB CARRIES THE DAY AT CLEVELAND

Report of Lamb Demonstration Work at the Cooking School Conducted by the Plain Dealer, Leading Newspaper of Cleveland, Ohio

THE occasion was a cooking school conducted by the Cleveland Plain Dealer (Cleveland, Ohio) and triumph for lamb came on Thursday, April 25. The Kitchen Cabinet, as the school was called, was an innovation in this field of work. In the past, newspaper cooking schools have been conducted by the advertising departments and their primary object has been the building up of advertising lineage. This was the first school ever conducted by the editorial department of a newspaper. Advertising played no part in it.

Miss Lamb, termed the debutante of meats, and resplendent in her 1929 dress, made her bow to some 900 Cleveland housewives at the evening session of the school which was held in the ballroom of the Statler Hotel. The event proved to be one of the most effective strokes yet delivered in the national lamb con-

sumption campaign being conducted by the National Live Stock and Meat Board for the National Wool Growers Association and lamb feeders of Colorado and Nebraska. The Board was highly complimented by this invitation to participate as one of seven leading food interests.

Presiding at the ceremony were Miss Inez S. Willson, director of the Board's Department of Home Economics, and D. W. Hartzell, the Board's lamb demonstration specialist. Their presentation of the subject held the audience tense for more than an hour and when they were through scores crowded around the stage to ask questions.

Mr. Hartzell has been engaged for the last year and one-half in conducting lamb cutting demonstrations in all sections of the country and, through his dexterity with the knife and ingenuity in develop-

ing new, practical, and rapid methods of cutting lamb, has come to be known as the lamb wizard. Miss Willson, who is recognized as a leader in the field of home economics, has devoted much of her time to lecturing on the subject of meats to audiences in many cities and has met with such remarkable success that she has been unable to fill all of the many requests received for her services.

The event in Cleveland was the first time it had been possible to bring these two experts together for a joint demonstration. The results were all that might be expected. The audience was treated to one of the most instructive and interesting programs of its kind ever presented.

In addition to this array of talent centered on lamb, the Cleveland meeting witnessed the introduction of a brand new feature—the animated lamb chart. The new chart just published in colors for use



Over Nine Hundred Housewives Were Present for the Lamb Cutting Demonstration and Lecture at the Cooking School of the Cleveland (Ohio) Plain Dealer. Mr. D. W. Hartzell and Miss Inez S. Willson Presented the Lamb Work. The Inset Shows Mr. Hartzell at Work with Mr. M. E. Cullen Assisting in Building up the New Lamb Chart as Mr. Hartzell Prepares the Cuts.

in the campaign furnished the inspiration for building this animated chart which was an exact enlarged reproduction of the printed article, an actual lamb carcass and cuts being used to make up the chart. This feature injected a new element of interest and color into the demonstration and it is planned to use it extensively in the future.

Copies of the Lamb Menu Book were distributed through the audience before the demonstration began. Attention was called to the reproduction of the lamb chart appearing in the front of the Menu Book, that the women might follow each step as the animated chart took form. As the demonstration and lecture progressed and after each of the cuts had been thoroughly explained, the cuts took their places in the enlarged chart which was thus gradually built up to completion, supplying a dramatic climax to the program. Completion of the life-size animated chart was greeted by a burst of applause from the audience.

The program was opened with a demonstration of cutting and fashioning the different lamb cuts which are being introduced in the lamb campaign. Starting with an entire carcass, Mr. Hartzell deftly carved out the parts, explaining where each was obtained and its advantages over cuts prepared by older methods. One after another, the rolled breast, the crown roast, the mock duck, the Saratoga chops, and all the rest took form to the apparent delight of the audience.

When Mr. Hartzell had finished, Miss Willson took the stage and continued the story, bringing home to this group of housewives the many possibilities of lamb, some of which have been entirely overlooked. She emphasized the fact that there are any number of delicious cuts of lamb aside from the legs and chops which are generally the limit of conception when ordering lamb at the market. During her talk she devoted special discussion to each of the cuts Mr. Hartzell had made, told how to prepare them, and went into some detail by giving actual recipes that made one's mouth water. At the close of Miss Willson's talk, many in the audience came forward to discuss the subject further and

to view at close range the animated lamb chart which had just been completed.

To say that the lecture and demonstration were a success is putting it mildly. Miss Florence LaGanke, home economics editor of the Cleveland Plain Dealer, and other representatives of that newspaper, were delighted with the program and expressed their appreciation of the cooperation the Board and lamb interests had given in making it possible.

NEW STATE LAWS

The Nevada Stockgrower for April reports a number of laws of concern to stockmen that were enacted by the legislature for that state during the past winter's session. Under Assembly Bill No. 192, a State Range Commission will be called into existence for the purpose of studying and determining the policies to pursue in the use of the range resource of Nevada that will be for the best public interest. An amendment made to Section 377 of the Nevada statutes on crimes and punishment makes anyone driving another's stock off its range liable for civil damages as well as a criminal penalty. A truth-in-fabric law, identical with the Wyoming law, was also placed on the Nevada books.

Another piece of beneficial legislation enacted by the Nevada body is contained in Assembly Bill 143, which clarifies the jurisdiction of the State Board of Equalization and the State Tax Commission. The passage of this bill places the tax commission in the position of a board of highest appeal in the matter of tax assessment valuations. The need for such clarification of the law was brought out last year by the Adams-McGill case. This company asked for a reduction in the valuation placed on its property. The County Board of Equalization refused the request; the State Board of Equalization passed the matter; and the State Tax Commission granted the request and ordered the reductions made. The county officials refused to make the reductions so ordered and the case was taken before the Supreme Court, which decided that the reductions should be made. The law as it now stands gives authority to the tax commission, at its regular sessions

which come after the State Board of Equalization meets, to raise or lower any valuations that have been placed on any class or piece of property, exclusive of livestock.

During its recent session the Colorado legislature incorporated into its laws "An Act relating to livestock and the regulation and use of the public domain range and providing a method to adjudicate disputes and providing penalties for the violation of this act." The object of the act, as recited in Section 1 thereof, is to prevent dissension between cattle and sheep raisers in the use of the range. Determination of which has the preferred or better right to use a certain piece of range will hinge upon the "use made thereof during the last grazing season prior to the passage this act." The settlement of disputes in regard to a range that has been used as a mixed cattle and sheep grazing area is provided for in Section 2, which reads:

Any range now being used as a mixed cattle and sheep range may be apportioned and divided between the different classes of livestock, that is cattle or sheep, grazed thereon, by the District Court having jurisdiction whenever a controversy or dispute shall arise upon complaint of any interested party or person using said range. Any such range shall, upon final hearing, be apportioned according to the requirements of the different kinds of livestock grazed or herded thereon and the nature of the different parts of the range to be apportioned and in accordance with the equities and rights of the owners of the different kinds of livestock using such range as a class, regard being had to the extent of the use theretofore made by each class of livestock growers.

Three referees are to be appointed to ascertain the facts in cases under consideration. One of these will be a cattleman, one a sheepman, and the third a disinterested party. Violation of the act is punishable by a fine of not more than \$1000, or by imprisonment for not more than six months, or by both fine and imprisonment.

WILLAMETTE VALLEY SHEEP-MAN DIES

DANIEL M. KIRBY, prominent sheepman of the Willamette Valley, died at his home near McMinnville, Oregon, on February twenty-first. Mr. Kirby had been in failing health for several months and death came as the result of a heart attack. He was well known in livestock circles of Oregon, Idaho, Utah and Wyoming.

WOOL MARKETING IN THE SPRING OF 1929

By J. A. Hill, Dean, College of Agriculture, University of Wyoming

THE events of the last two weeks have shown that the dealers who refused to make preshearing contracts for wool early in the year at anything near a parity with prices then prevailing in Boston guessed right. The prices ruling for medium wools at that time would look high now. This fact should go on record for the benefit of those who have been inclined to think that when it comes to playing the contracting game the growers are able to outguess the leaders. Even a runaway market like last year's that is afterwards followed by a decline does not benefit a large number of the growers who are always anxious to contract. The majority of those who habitually contract dispose of their clips early, just when the rise is taking place. Those who get the most benefit are generally the hard-headed ones who require some unusual inducement to sell wool before shearing.

Anyone who likes to see the wool of the West improved, and who believes that the only way to secure a permanent improvement is for the man who produces good wool to get paid for it in proportion to its goodness, is compelled to be against preshearing contracting on principle, for it is certain that the wool is not going to be carefully bought months before it is sheared, and the practice must work against the best interests of the wool industry even if individuals who contract win in certain years.

Defects of the Wool Pools

It seems that the ultimate bad practice in wool selling is the average contracting pool where a group of sheepmen, either large owners or small owners, place their wool in a pool and agree to sell it at a flat rate, sometimes months before shearing. The buyers do not know what the wool is like or what it can be expected to be like at shearing time. The growers who contribute to the pools must necessarily contribute clips of widely different intrinsic value.



DEAN J. A. HILL

With the range for the different grades of prices as it is today there are very few pools in Idaho, Wyoming, Utah, and Montana that will not contain clips differing in intrinsic value by at least five cents a pound. During the first three months of the year, this difference of values would have been greater. It is impossible to understand how county agents and others who organize these pools can have the feeling that they are helping to encourage the production of good wool. The man who provides the best wool for the pool is contributing to the welfare of the unprogressive man who is producing the poorest. Until there is a better method of valuing these mixed pools at home it seems that they should be consigned to some selling agency that will grade them and keep the account of each grower separate.

It has been said by the defenders of these pools that although some of the growers benefit more than others all benefit more than they would if they sold separately. This defense would be justifiable if selling at home at a flat rate were the only available method of selling, but all the large cooperatives have set up machinery for accounting for small individual clips and there is, therefore, no justification for this communistic idea at

least until the country more generally adopts the modern Russian plan.

It is my opinion that the thing that holds back wool marketing in the United States more than anything else is the insistence of the growers upon selling for cash at home. The successful organization of the Australian market and the possibility of selling the wool through auction all rests upon the willingness of the Australian growers to accept an advance on their wool, and then put it in the hands of experts to be sold by agents to manufacturers or their agents when it is needed for use in making goods. But the American must have all his money and settle the account at once. This urge has done, and probably will do, more to defeat cooperative marketing, even when fostered by a \$500,000,000 farm relief board, than all the combined efforts of middlemen who are against cooperative marketing because it is bad business for them.

To Grade Wools at the Ranch or Consign.

Just now growers, knowing as they do the wide spread of prices between the the shorter fine wools that are produced throughout the West and the medium wools, are discussing the possibility of grading their clips so they can get their value. Grading wool at the shearing sheds was tried for a few years beginning about 1915 and was then given up because the growers thought it did not pay. Now there are practically no graders available in the West and there is no organization especially planned to supply them. But if the wool is consigned to competent and honest selling agencies it can be graded by experts and sold by experts without all the fuss of grading at home.

Of course selling wool on consignment is unfavorably looked upon in the West because many growers have had unfortunate experiences in the use of this method. A number of things account for this. One is that, owing to the urge to

sell at home for cash, in years when there is a fairly active demand for wool only the very poorest clips are consigned. Although the tendency of the dealers who operate in the West is to make approximately a flat price for any community in which they operate, they protect themselves to some extent by not being much interested in the very poorest clips. Therefore, at the end of the season these are left on the hands of the growers to be consigned. Consequently, if the market remains stable, these men are likely to receive small returns as compared with their neighbors who sold best clips at home. Then there is the year such as last year when there was a boom during the buying season in the West. But prices started down just about the end of the shearing season and those who had held their wool for the highest possible price found it on their hands and had to consign it. Since the dealers themselves no doubt lost money on some of the clips bought at the peak, the growers who consigned took less for their wool than they could have sold it for at home when prices were at the peak. Then again we have a year such as this when the market outlook is gloomy and the buyers do not have much faith in any marked and sudden upward turn in prices, therefore they encourage consignment because if they have their warehouses full of consigned wool they make a commission that at least pays their operating expenses. As long as the growers will sell outright in good years and then consign to the same wool merchants in the bad years, the merchants will not have to struggle very hard to make a good living. It is possible that the tendency that has developed in some places to consign only to the various cooperatives and grower-owned selling agencies, if the wool cannot be sold at home, has had a very healthy effect upon the western market because the dealers no longer feel sure that if they cannot buy the wool they can at least get it on consignment.

This is a year when it is going to be hard for any grower to value his wool at home. He must not only know shrinkage but he must know grade.

Valuing the 1929 Clip

For a number of years I have been writing wool market reports for a local paper. In order to make the market prices more understandable and to indicate the trend I have computed the ranch price on the basis of the quotations in the Commercial Bulletin, of Boston. On April 30, 1927, the prices I listed for the five principal grades were as follows:

Fine staple	31 to 33 cents
Half blood combing	30 to 32 "
Three-eighths blood combing.....	31 to 32 "
Quarter blood combing	29 to 31 "
Fine and fine-medium	
French combing	27 to 29 "

The range on the top side of these grades was only 4 cents, and if the French combing grade were excluded, which nearly anybody can tell by its length, the range is only 2 cents. So that in that year a flat price pool would not have been so far wrong as it would be today.

April, 27, 1928 the ranch prices of the same grades were as follows:

Fine staple	35 to 36 cents
Half blood combing	36 to 37 "
Three-eighths blood combing.....	37 to 39 "
Quarter blood combing	39 to 41 "
Fine and fine-medium	
French combing	30 to 32 "

Here the spread between the top price of quarter blood combing and fine French combing was 9 cents, and the spread between fine staple and quarter blood combing was 6 cents. This is one of the reasons why a considerable amount of fine wool of different length had to be consigned last year. The owners tried to sell it for the price of medium wool.

April Quotations Related to 1927 and 1928 Prices

The latest quotations figured on the same basis are:

Fine staple	29 to 30 cents
Half blood combing	31 to 32 "
Three-eighths blood combing.....	33 to 34 "
Quarter blood combing	33 to 34 "
Fine and fine-medium	
French combing	27 to 29 "

The range on the top side is only 5 cents between fine and fine-medium French combing and three-eighths and quarter blood combing. But it is 4 cents between fine staple and three-eighths blood, and half blood combing is 2 cents higher than fine staple.

Some years it is easy for a man to price his clip on the basis of what he received the previous year, taking into consideration the general upward or downward

trend of the prices, but this cannot be done this year without taking grades into consideration. In 1927 the average of the five grades listed above was 30.5 cents, in 1928 it was 36.2 cents, and today it is 31.2 cents. So that at the end of April it can be said that the average price of wool on a grease basis is 4 cents lower than it was on the corresponding date in 1928, and three-fourths of a cent higher than it was on a corresponding date in 1927. So, according to one way of looking at it, if a man sold his wool at the right price in 1927 he should try to sell it three-fourths of a cent higher this year. Perhaps in consideration of the general feeling of pessimism that prevails in the wool trade due to the slump that has taken place both here and in the foreign markets a grower would feel justified in selling at the same price as received in 1927. But this would not be the case unless he had equal portions of all five grades because, as compared with two years ago, fine staple is 3 cents lower, half blood the same price to 1 cent lower, three-eighths blood is 2 cents higher, quarter blood is 3 to 4 cents higher, and fine and fine-medium French combing is about the same price. Just at present if the clip does not contain too much French combing it would be easier to value by comparison with last year's prices because as compared with 1928 fine staple is now 6 cents lower, half blood 5 cents lower, three-eighths blood 4 to 5 cents lower, and quarter blood 6 to 7 cents lower, but French combing is only 3 cents lower.

If prices maintain their relative position the growers of the fine clips of medium length, that make up such a large portion of the fine wool fleeces south of Montana, should take note of the relatively high price of fine and fine-medium French combing as compared with fine staple. Otherwise they may tend to sell it too cheaply because it has dropped in price much less than any other grade. Of course there may be an adjustment in this relation before this year's clip is sold but it begins to look as if the topmakers can use this wool so satisfactorily that they are not willing to pay a high premium for the extra length that is required in a wool that grades strictly fine staple.

SHEEP HUSBANDRY IN EASTERN STATES

The Place of Large and Small Flocks in the East—Utilization of the Farm By-Products—Advantages and Handicaps of the Eastern Industry

By Mark J. Smith, Burdett, New York



On a Virginia Farm. In This Part of the East, Where There Are Natural Permanent Pastures and Fairly Mild Winters, Larger Flocks of Sheep Are Maintained Profitably.

SHEEP husbandry in the East, for convenience, may be divided into three main types, on one of which I wish to place the most emphasis. They have to do—first, with the specialist, second, with the large farmer and large flock owner and third, the small farm flock kept as a profitable side line on many farms.

Commercial sheep raising on a large scale in the East has experienced considerable difficulty except in those regions of natural permanent pastures and of fairly mild winters such as is found in southern Pennsylvania, south-eastern Ohio, and parts of the Virginias. A few years ago 2400 good western ewes were installed on land in Cortland County, New York; 1600 acres were leased, some of which would grow alfalfa; experienced western sheepmen were in charge; and good bucks were purchased. The land was much more productive than land often called sheep pasture, but with all these advantages and favorable conditions the enterprise did not succeed. The benefit of the by-product feature is lost in these large-scale efforts and it is this factor that makes the small farm flock profitable. There are many considerations for the experienced, such as winter feed, fences, flock health and so on. How-

ever, the right man will overcome almost any obstacle.

In many parts of the East we have five or six months of winter feeding for which provision must be made and for this reason good sheep husbandry and good land often go together: one third of the sheep in New York are in a few of the best farming counties. Twenty-five or thirty years ago John Liles of Ohio Merino fame bought of A. T. Gamber, a member of the same fraternity, a foundation flock of ten ewes. In answer to Mr. Liles' question as to just what he should do in order to succeed, the story goes, Mr. Gamber replied: "Feed 'em". In a little less than a year Mr. Liles sold Mr. Gamber six rams for \$25.00 more than the cost of the ewes and there were four yearling ewes to add to the flock. It has ever been so—good feed and good sheep have always gone together. Sheep are as good as the land on which they grow and as the methods used. The men who have tried to raise a large breed on thin land have soon found that they had a small breed.

Good Feed an Essential

The foundation stock is important, but a good feeder can in a few generations

change the very type and conformation of his strain of sheep. As an illustration of this, the Southeast Test Farm at Carpenter, Ohio, a few years ago took a bunch of uniform ewes and divided them up into four lots as near alike as possible. Different feed was given each lot, ranging from no grain to a good grain and hay ration, pasture conditions being the same for all lots. The ewe lambs were retained in each case. Today the sheep in the different lots do not appear to be of the same breeding even. The ewes of the best lot are one-third larger than those of the poorest lot and the poorest lot is nearing extinction due to poor lambing percentages and loss of ewes. How often we see this worked out in actual sheep husbandry.

Sheep husbandry at its best in the East is on good land where there is farming and feed of various kinds in conjunction with plenty of available pasture land. And this brings me to the second type of sheep husbandry, namely, sizable flocks on the larger farms. Roy Dunton of Rushville, N. Y., took 66 crossbred Lincoln-Rambouillet ewes and raised 97

lambs. Twenty-two head sold in September at 12 cents a pound; 75 head were fed until December 20 and sold at 14 cents, weighing a little better than 110 pounds. The feed was bean pods, clover hay and cull beans. Two weeks prior to lambing the ewes were given plenty of barley and oats, and during the summer pastures were changed every two weeks to insure flock health and freedom from parasites. The manure was put back on the land to enrich it for more beans, wheat and clover.

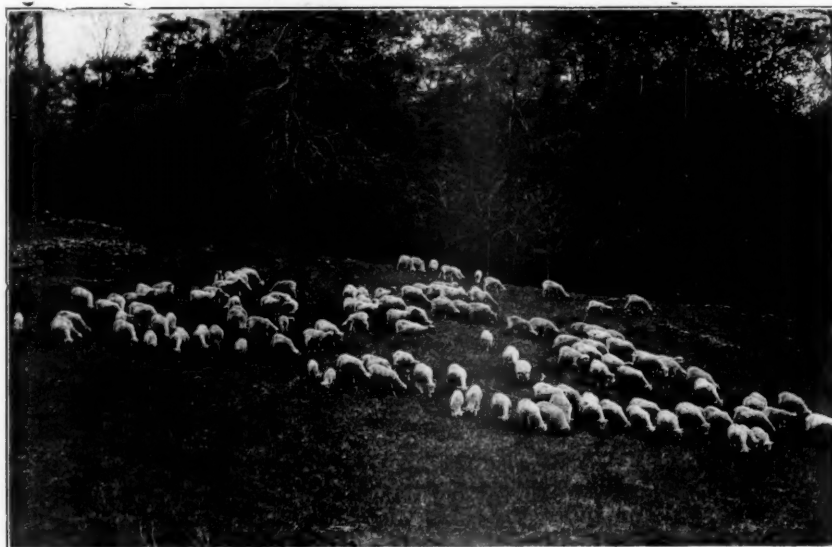
It is impossible to figure accurately the cost of running a ewe a year in the East as they do in the West because of the vast amount of by-products of the farm that are used. A farmer told me the other day that his ewes were still in the field, that he was giving them one good feed a day of bean pods and he said he thought his ewes were gaining. Not much cash outlay there.

The Value of the Small Flock

The small farm flock kept, more or less, as a side line to the main farming plan is today the most important type of eastern sheep husbandry. This is where we find the large incomes per head and where we find sheepmen and their wives who know their sheep. The average size of farm flocks in the East is around 35 head. The size of the flock will adjust itself to the conditions. Successful sheep owners soon learn how many sheep a given farm will successfully carry. There is not much glamour in it but the farmers who have consistently kept a good healthy flock of breeding ewes are seldom heard asking for help or talking about farm relief. There are men who would not try to farm without sheep.

A few miles from my home lives a farmer who was approached by a representative of a farm paper who asked him

to outline his grievances. This prosperous farmer replied that he had no fault to find with the conditions and no kick coming whatsoever. And here is one of the reasons! In 1913 he bought a farm. The following fall he bought a flock of sheep at \$6.25 a head. The first year they paid for themselves and paid for a fence around a 35-acre brush lot unfit for farming. In five years the sheep had brought in money enough from the sale of wool and lambs to equal the purchase price of the farm. He said: "They will do it today—fencing and sheep are higher, but lambs and wool are higher."



Western Ewes on an Indiana Farm.

Every sheep in the flock is known by some sort of name, such as "Big Black Face", "Grey Face", "Horned Lady", "Spot", and so on. A record is kept of the production of each ewe—when she lambs, how many lambs, if twins their ears are notched. I saw one ewe eleven years old that as a yearling raised a lamb and which as never missed a year raising one or two lambs and two lambs as often as one. I saw a ten-year-old ewe which has raised triplets two years in succession. The flock is kept good by the saving of the best ewe lambs. This is the sort of attention that makes sheep pay. The other main crops on this farm are beans, hay, and corn.

Suitable Types for the Farm

We find quite a variety of types of

sheep adapted to eastern farm flock husbandry. We have a substantial purebred industry, the business of which is to supply flock headers to the owners of commercial ewes and of course to supply registered stock within their own industry. The native ewes, grades of some of the mutton breeds in which Shropshire blood often predominates and often with a dash of fine-wool blood, give good satisfaction when crossed with a purebred ram. This type of sheep cannot be run in too large flocks, and care must be given and pastures changed. These ewes represent the law of the survival of the

fittest as they are the offspring of the toughest and usually of the most productive. This whole business of grading up and developing a flock of sheep to some hard-headed sheepman's ideal of a farm ewe has occupied the better part of many a sheep owner's life.

To them, their pride in their flock repays them.

Western ewes are found in the larger flocks, such as we have in western New

York. These usually come from the Northwest. The average farm flock owner wants ewes with the capacity to raise a considerable number of twins. The most vital and essential quality for all ewes and rams to possess regardless of breed or type is constitution. A ewe without a good constitution is worthless and subject to all the diseases known to sheepdom. When W. H. McLaughlin of Raphine, Virginia, was sixteen years old his father sent him into another state to buy a stud ram and his father said to him: "Get him with big nostrils, a good wide head, a good sized neck and wide on top of the shoulders, a good leg of mutton, a big twist, and get him good around the heart girth and when you take a hold of his fleece get a handful." That

tells the story. I read recently that in Australia pinched heart girths are called the "Devil's grip".

The best time for lambs to come depends upon the type of sheep husbandry, the locality, and the amount of feed and facilities available. We have our hothouse lambs in New York ready for market by Easter and before. In Kentucky and Tennessee lambs are ready in June. When western lambs and eastern lambs are dumped on the market at about the same time, the result is demoralized prices. From the standpoint of economic production alone, under conditions of pasture and climate prevailing in the northeastern states, late lambing is more profitable than early lambing for the average run of flock owners. The unborn lamb develops a third during the last month and this is the month of heaviest strain on the ewe and the period during which she requires the most nourishment. When at least a part of this time is spent on grass the feed bill is reduced and the ewe's system benefited with corresponding saving in percentage of lambs raised. Most sheepmen want their lamb-raising to be largely a milk-and-grass proposition.

Some Problems to be Solved

Where there are advantages there are also drawbacks and so we have stomach worms and dogs with which to contend. Stomach worms kill more sheep than dogs or any other one thing, but it is not the deaths alone that measure the importance of the problem. The lack of thrift on the part of the flock is more serious than a few deaths. I know of one man who keeps 200 ewes whose lambs averaged only 59 pounds last fall and who was cut to 9 1-2 cents a pound.

The principles of flock husbandry and flock health are so closely related that they cannot be separated. Sheepmen in the East who graze sheep on permanent pasture are going to drench their sheep in a more systematic manner and change pastures with more regularity than they have in the past. The small farm flock owner is in a happier position, for he plows his fields and rotates his flock over his various fields—the plow has always been the one great health preserver of the sheep. A few years ago, A. J. Knollin

made a statement that I have never forgotten. He said: "Farmers of the future who will handle sheep successfully will cultivate the lands upon which their sheep pasture and follow a regular rotation. By this soiling process not only can sheep be kept healthy, but the land itself be enriched." Volumes could not say more. We can take a lesson from England where the agriculture of the country depends much upon the sheep and this on high-priced land. Take for example the region where the Hampshire breed of sheep was developed.

We are fortunate in New York State in having a good dog law and officials in charge who are close to the actual problems of the sheep owners. I believe the tendency is to give this industry an increasing amount of protection. Other states in the East, such as Pennsylvania, have good dog laws also. I think cowbells on sheep help in this business of protecting sheep from dogs, but the bells must be capable of making some noise; I think small bells are practically useless.

Sheep require a kind of care that many men are not willing to give, such as the attention to little details of shepherding. More depends on the man than on any other factor. The bulk of the sheep have been and always shall be kept by sheepmen—men who know the business, men who will keep sheep regardless of fluctuations of the wool and lamb markets. I can see no conflict between the sheep and the cow. I think the importance of any shift of dairymen to sheep is negligible.

There is a place in the East for many more farm flocks on farms not carrying sheep to utilize the unused resources of pasture and roughage. Putting the industry on a quality basis is of vital importance at the present time. Considering the advantages of the East, such as nearness to consuming centers, available farm by-products and so on, farm sheep raising will be as profitable per head kept here as in any other section.

"Under the sun there is nothing new," so said Solomon and he said true. No one man is going to rediscover the economic importance of the "Golden Hoof" to the farm because the old ewe has been faithfully doing her bit for centuries and

will continue to do so. The coming of a flock of sheep has been the salvation of many a run-down farm, as that great shepherd and friend of the sheep, Joseph E. Wing, once said with regard to the time when he drove home his first flock of ewes: "Happy beginning it proved to be; though many lessons remained to be learned and many discouragements to be fought through, yet the coming of the flock meant the beginning of the up-building of the old farm and of the fortunes of its owners."

FLEECE DENSITY VERSUS LENGTH OF WOOL

THE following comments on the laboratory report upon Australian and United States Rambouillet samples, made by Professor Robert H. Burns, and printed in the December Wool Grower, were received from Professor J. F. Wilson of University Farm, Davis, California, as the March issue was going to press:

In the December issue of the Wool Grower there appeared an article by Robert H. Burns, of the University of Wyoming, in which he presented an analysis of the fleeces from four Rambouillet and two Australian Merino rams. Mr. Burn's article was highly illuminating for those who will take the trouble to study the data he presents. It was disappointing that the figures were not supplemented by comment.

The fact that the Australian rams which produced the wool tested by Mr. Burns were among the high-selling individuals at the Sidney sale indicates that they are excellent representatives of their type. The Rambouillets which were adjudged sufficiently meritorious to win at Chicago must be considered among the best representatives of the breed produced in this country.

While the number of animals involved was too small to warrant any definite conclusions being drawn, the averages indicate that the wool produced by the Australian rams was fully equal in length of staple, slightly finer, and at least as uniform as that produced by the American rams. The big difference, however, was in the density. The Australian rams

showed on an average nearly twice as many fibers per square inch of body surface as the Rambouillets.

In the United States it is common belief that greater density is accompanied by a short staple. Do not Mr. Burn's figures tend to disprove this? The work of the Bureau of Animal Industry at the Dubois Station has shown that length of staple is closely associated with fleece

weight on either a grease or scoured basis. Certainly density must be as closely correlated with fleece weight as is length. The Australians have proved their ability to produce fleeces which have both characters—length and density.

As Hamlet said, " 'Tis a consummation devoutly to be wished."

Davis, California,

J. F. Wilson.

Sheep Affairs in Australia and New Zealand

By A. C. Mills

March 16, 1929

THE Australian wool market witnessed a further drop in values during February, many selling brokers reporting a fall of from 5 to 7 1-2 per cent, especially for top lines of Merinos. Under the stimulus of lower rates, Bradford, England, operated more freely than for some time past, but most of the Continental countries and Japan showed a tendency to hold off. The drop is confirmed to some extent by the official figures prepared by the National Council of Wool Selling Brokers which make the average price of all greasy wool sold in the Commonwealth between July 1, and February 28, 33.74 cents per pound, as compared with the average at the end of January of 33.92 cents per pound. The same body reports that the total sales to February 28, equaled 1, 902,068 bales out of an aggregate of 2,465,516 received into their stores for the current season. After deducting 19,056 bales shipped unsold there were still some 544,392 waiting realization on March 1, compared with only 258,438 on the corresponding date of 1928.

Fortunately the market has firmed slightly during the last week or so, good Merinos, and fine and coarse crossbreds having appreciated to a small but hardly quotable degree. There has also been a wider demand. This is the more satisfactory as past experience indicates that any material advance cannot be expected at this stage of the selling season. Indeed,

the more usual thing is for the market to drop about now.

The fact that **best wools** have been relatively weakest during the current season rather lends force to the opinion, which is steadily gaining ground, that artificial silk, or rayon, is playing an increasing part in the depreciation of wool values. It is pointed out that the annual production of synthetic fiber now amounts to approximately 350 million pounds and that it is equal in point of weight to about half the total yearly Australian clip. The position is viewed with seriousness by thinking men connected with the trade. They are coming to recognize that it is futile to continue to adopt an ostrich-like pose towards such a lusty competitor, and I see there is talk in one of the leading wool journals of the necessity for carrying out propaganda with the object of emphasizing the virtues of wool as compared with artificial silk. It certainly looks as though something would have to be done before long. It is a familiar saying that Australia rides on the sheep's back. Over 50 per cent of the value of our exports is directly derived from sheep and the finances of the country are such that we cannot afford to have that value seriously depreciated.

February proved a disappointing month in the north so far as rainfall was concerned. Heavy storms occurred on the coast of Queensland, but far inland the falls were scattered and often un-

satisfactory. Some districts have had good soaking downpours, while those close adjoining are still dry. The eastern sector of New South Wales also received good rains in February and irregular falls over the central and western divisions. A general break is urgently needed in both states before the winter sets in. Hand feeding is still being practiced in some districts, and with the autumn lambing imminent the prospects are not too bright.

Pastoral conditions in the south are better. Most of the country is carrying a fair body of dry feed and, provided the usual autumn rains set in before the ground gets too cold, the winter can be faced with equanimity.

As is usual at this time of the year, yardings of fat sheep and lambs are in comparatively small compass and values firm. For instance, both fat crossbred wethers and lambs were selling to \$7.20 per head in the Melbourne yards last week, and higher, if anything, in Sydney. Those rates being well above oversea selling parity, the export companies have been forced to stop slaughtering operations. Probably they will not be able to operate again until next spring, though it is just possible that an exceptionally dry autumn might throw heavy supplies into the yards and make it worth while to reopen the plants.

The frozen lamb export trade for the past, and for that matter the last two seasons, has proved disappointing. With the increase in area being brought under irrigation and the progressive cutting up of large estates it was generally thought that a considerable expansion would take place, instead of which we find that this season's killings to the end of February have been few over one and a half million head and actual exports less than one and a quarter million carcasses. Considering that at least a dozen expensive meat works were engaged in the trade, such an outturn cannot be regarded as satisfactory.

Several factors contribute to the relative smallness of Australian export operations, and one of the chief is undoubtedly the increase in home consumption. Still it seems that graziers as a body are neglecting a profitable side line to their

business. A lamb suitable for the export trade costs no more to breed than one that has to be raised to maturity and too often sold in the store market for less than it would have realized direct off the ewe. True, the breeder takes a chance of obtaining a fairly payable fleece, but year in and year out the quicker turnover provided by the export trade is the better proposition. At all events New Zealand farmers have proved that to be the case. Lambs there are raised in tremendous numbers purely for the oversea markets and on land that costs much more than it can be bought for in Australia. Even after making due allowance for the fact that wool growing is the staple industry in Australia the following figures are illuminative: New South Wales and Victoria, the two states principally concerned in the trade in the Commonwealth, normally carry some 65 million sheep and have lately exported one to one and a half million carcasses of lamb per annum; New Zealand, on the other hand, runs only 27 million sheep

and yet shipped over five million frozen lambs both in 1927 and 1928.

The persistent weakness in the oversea markets has brought about a further reduction in fat lamb values in New Zealand. At the close of February, North Island packers were offering 18½ cents per pound, over all for prime weights under 36 pounds and from 16½ cents to 17½ cents for heavy and second grades. In the South Islands 19½ cents is being paid for the best light lambs and from 17 cents to 18 cents for heavies and seconds. Despite the reduction, nearly all the works are killing with full boards. A moderate number of sheep are also being slaughtered for the export trade, the buying rate for such ranging from 15 cents per pound, over all for first quality wethers under 48 pounds, to 9½ cents for weights over 72 pounds. Ewes are costing from 6 cents to 11 cents a pound according to weight.

It is interesting to note that though climatic conditions were not altogether favorable in New Zealand during 1928

the year's lamb crop was well up to the average. An official estimate recently published states that 15,534,051 ewes were bred and the drop is estimated to have been 13,373,267. This gives a percentage of 86.09 per 100, compared with 86.76 in 1927 and 84.57 in 1926.

The course of the wool market has followed that of Australia closely. There has been a slight but continued fall in prices ever since sales were resumed after the Christmas recess, the decline being most marked in fine wools, Merino and halfbreds. Crossbreds, although weaker, have maintained their values better. The official ranges of prices for average to super wools at the February Wellington sale were: Merino, 31 cents to 35 cents; Corriedale, 32 cents to 37 cents; fine halfbred 33 cents to 40 cents; medium halfbred, 32 cents to 36 cents; extra fine crossbred, 30 cents to 38 cents; fine crossbred, 29 cents to 37½ cents; medium crossbred, 27 cents to 35½ cents; coarse crossbred, 27 cents to 32 cents; low crossbred, 24 cents to 30 cents.

MINERAL FEEDS FOR SHEEP

Commercial Sheep Tonic Feeds—Mineral Requirements of Sheep

By Dr. Howard Welch, Veterinarian, Montana State College

(An Address Given at the Annual Convention of the Montana Wool Growers Association)

EVER since I can remember, the stock growing public has been urged to buy tonics for livestock. Some of these were for horses, cattle, sheep and swine; some just for horses, or just for hogs, according to the imagination and ambition of the manufacturer. For the last ten years, and particularly in the last five years, these miracle-working preparations have been sold quite extensively to sheepmen in this and neighboring states. I am not referring to mixed feeds, nor to preparations supposed to contain a food value. The sheep tonics I am speaking of are supposed to have a distinct medicinal value and to cure or prevent the various things that affect sheep.

This is an age of miracles. So many wonderful things have been done in the last five years that we hesitate to say that anything is foolish or impossible.



DR. HOWARD WELCH

We are no longer easily surprised at any invention or accomplishment.

The high pressure salesman, with a line of sheep tonics to sell, finds us half-way ready to believe his line of talk, and if it so happens that our sheep are not in the best of condition, we sign on the dotted line. We have heard of so many wonderful things, the control of diseases, the lengthening of the average life of man, that we listen with open mouth and popping eyes to the sales talk.

The salesmen are smart people, and students of human nature. They would never tell a man that his sheep needed more alfalfa. Nothing so crude as that. They work along the more complex and vague line of mineral deficiencies, of improper blending of the necessary elements that the animal needs to grow and develop, of internal parasites. Here at last is the wonder working tonic that will add four years to a sheep's life: Guar-

anteed seventeen different ways, grows more wool, bigger lambs and more of them, cures lungers, insures proper digestion, expels and prevents worms. This remedy solves forever all the troubles of the sheepman. No more hospital bunches, no more pelts on the fence, etc., etc.

Concerning Mineral Deficiencies

Let us look at these claims for a moment. What about these mineral deficiencies? Everyone knows that the human body or the animal body is made up of a large number of chemical ingredients. We must have iron, sulphur, lime, phosphorus, potassium, chlorine, iodine, sodium and a large list of other things to build a perfect sheep. But every one also knows that with one or two exceptions, all these ingredients are found in abundance in the common feeds which we supply to sheep. These exceptions, these missing minerals, are not the same all over the country, nor even all over our state. They are local problems. For instance, in most of the Mississippi Valley, there is a shortage of lime. They have to lime the soil in order to raise alfalfa. Fat hogs break down from lack of lime. All the stock tonics, etc., in the Middle West contain lots of lime. Do we need lime in Montana? We do not. We have more lime than we know what to do with. Our soils, water and feeds are charged with lime. Yet this salesman, with a product made in South Omaha, would have you pay freight on the lime that you don't need, from Omaha to Montana.

He will emphasize the fact that his mixture contains sulphur. Even if sulphur had any value in a tonic, which it has not, we wouldn't need any sulphur shipped out here from Peoria, Ill. Montana is well supplied with sulphur. Most of the alkalis are sulphates, and sulphur is abundant in our soils. We have sulphur enough and to spare.

However, Montana does need phosphates, in certain sections. That is, we find that in certain well defined areas cattle have the habit of eating and chewing bones, and some of these bone-eaters get thin and lame. Wherever this occurs, careful analyses of grasses and

soils show that the phosphate content is very low. We know that we can feed these cattle phosphates in the form of bonemeal, and make a wonderful improvement in their condition in about thirty days. I have watched the sheep in these districts, and I can't see anything wrong with them: Maybe they would do better with phosphates added to their salt. I don't know, for no one has ever tried it that I know of. And if we don't know, what does this outfit back in Keokuk, Iowa, that manufactures this tonic, know about it? We hear a lot of talk about feeding phosphates to sheep; we hear about the proper blending and mixing of these minerals. I try my best to keep up with the times, but I have never seen one single report or reference to any condition of sheep that is due to any mineral deficiency.

We do have a real mineral deficiency in the lack of iodine. This lack doesn't seem to affect the adult sheep, but it certainly affects the lambs. There is nothing imaginary about a wagon box full of lambs dead of goiter. The sections where the iodine is lacking are also spotty and irregular, but confined pretty much to definite areas. Does your salesman from Kansas City know about our need for iodine? He does not. There is no goiter in Missouri. If any one of these sheep tonics or medicated salts from the corn belt contains any iodine, I have yet to see it.

There are only two minerals that can possibly be of service to sheep in Montana: Iodine certainly and phosphates, maybe. So much for the mineral deficiency.

Analyses of many mineral mixtures show that they contain copper sulphate, sodium sulphate, magnesium sulphate, sulphur, charcoal, and a long list of other things. The principal ingredient of course is salt, often running to 95 per cent of the total. Now except for the salt, the rest of this mixture is just junk. It has no value. You might build roads of it, but it isn't worth a nickel a carload for a sheep feed. It has no food value, it has no medical value. It is put in the sack wholly to make a long and expensive-looking formula, to make it appear scien-

tific and mysterious. There is not one particle of evidence to show that any of these ingredients tend to do any of the things claimed for them, or any evidence to show that these elements are not to be found in abundance in ordinary feed and water.

I don't know anything about conditions around Council Bluffs, where this mineral came from, I have never studied the situation. I would not attempt to advise Iowa farmers on mineral mixtures. But this salesman is no shrinking violet. He tells Montana sheepmen, in very positive terms, just what our sheep need, out here in the wide open spaces.

Ineffective Worm Treatment

This mixture is also guaranteed, or recommended, to expel worms, and to prevent the sheep from becoming wormy. This is just plain bunk. There is not, never has been, and very likely never will be any effective worm treatment that can be safely fed to sheep in troughs or in feed, mixed with salt, or fed in any such manner. It just can't be done that way, and for this reason: A worm attached to the lining of the intestine is not easily killed. It requires a medical agent of very drastic nature to kill and expel these worms. Without exception, such medicines are poisonous in overdose. That is, if a sheep should get two or three times as much as she was supposed to get, poisoning would result. If such an agent was mixed with grain and fed to sheep, you can easily see what would happen. The first half dozen sheep to reach the trough would be poisoned, and lawsuits would follow. Above all things, these mineral mixtures must be harmless, and are usually so harmless as to be useless.

It's probably true that most sheep carry a few worms, but it is not true that all sheep should be treated. We find, here and there, sheep that are so loaded with worms that they become unthrifty, but to assume that all thin or unthrifty sheep are wormy is a mistake. Not many men can tell, by the examination of live sheep, whether they are wormy or not. A few samples of sheep manure, sent to

(Continued on page 41)

Importance of Shrinkage in Determining Wool Values, No. II

By J. F. Wilson, University of California

IN THE March issue of the Wool Grower we discussed the effect of varying shrinkage on the price of wool in the grease and showed how to solve some problems in wool arithmetic. It was brought out that if growers are to know the values of grease wool, the shrinkage, as well as other pertinent facts, must be known.

This leads to the question: "How can the shrinkage of wool be judged or estimated?" It is a question which, from the standpoint of the grower, is difficult to answer.

Buyers for the larger wool merchants can estimate shrinkage fairly closely. They are usually first schooled in the merchant's warehouse with the graders or in the field with older and greatly experienced buyers. Through such contacts they learn to judge shrinkage with considerable accuracy.

Growers cannot hope to learn to judge shrinkage as accurately as can the buyer. This is not because growers are less intelligent than the wool buyers, but because the job of growing wool leaves no time to learn another business. A grower can, however, get some idea of shrinkage which may prove of value. First of all, he

should know the average or usual shrinkage for fine wools and for medium wools in his locality. He should know, for instance, that range-grown fine wools in southern Wyoming usually shrink in the neighborhood of 66 per cent, while wools of the same grade grown in Ohio will probably not shrink over 60 per cent to 62 per cent. Three-eighths blood wools, or 56's, will normally shrink 10 to 14 per cent less than the fine wools. Half blood wools grown in any locality will usually be intermediate in shrinkage between the fine and three-eighths blood.

Then every grower should know that the longer stapled wools shrink less than short wools of the same grade. If fine clothing wools in one section shrink 68 per cent, it is probable that the French combing will shrink about 66 per cent and the fine combing around 64. Similarly if three-eighths blood combing wool shrinks 50 per cent, it is probable that the clothing wools of that grade will shrink at least 52 per cent.

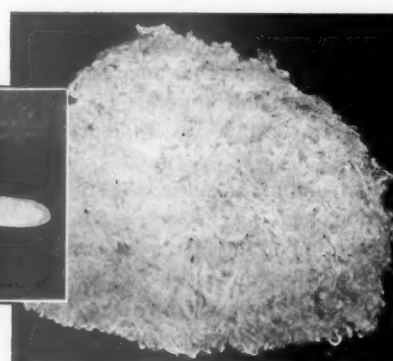
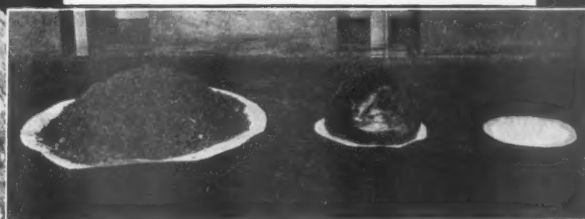
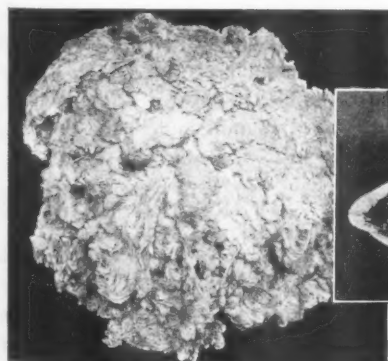
The grower can also have somewhat more than a hazy idea of seasonal variation. If the weather before shearing has been consistently cool and shearing is done before the grease has had a chance

to "rise" it is probable that the shrinkage will be somewhat lighter than normal. On the other hand, if weather conditions have been marked by high winds and dust storms, the clip may be somewhat heavier shrinking than usual. By studying his own clip over a period of years, the grower should be able to analyze it to the extent of knowing whether his clip is "light" or "heavy".

By reading market reports furnished by the government and by various growers' agencies, every sheepman should know what grades of wool are most in demand. The grower who does not know that medium wools are at present commanding a premium over fine wools is asleep at the switch and there is no excuse for his ignorance. Such information is so readily available that all growers may obtain it. Knowledge of this sort is no doubt of just as much importance as a knowledge of shrinkage.

After this is all simmered down, however, the fact remains that the grower is at a disadvantage with the dealer in arguing over the value of wool. The strength of the staple, the uniformity of the clip, the color, the noiling percentage, and other factors are important in deter-

The Shorter Catechism on Wool Shrinkage



Q. What is this?

A. It is a range-grown fleece of fine wool. It weighs ten pounds, as is.

Q. How much is it worth?

A. That depends on several things, and the chief thing is the shrinkage.

This is a queer picture, isn't it?

Q. Yes, what in the world does it represent?

A. Oh, it is a picture of the things that cause shrinkage. I will tell you about them. On the left there is a pile of dirt which came out of the fleece. It weighs 3.9 lbs. Then in the center there is 1.6 lbs. of wool grease and on the right is one-half pound of suint or dried perspiration. All of this stuff came out of the fleece.

Q. Well, is there nothing left after taking out the dirt, grease and suint?

A. Yes, there is some scoured wool.

Here is the way the fleece looks after it is scoured.

Q. It doesn't weigh ten pounds now, does it?

A. No, it only weighs four pounds. The dirt, grease, and suint weighed six pounds in this particular fleece, and that leaves only four pounds out of the ten pound fleece which we see in the first picture. So you see the shrinkage or loss in weight was six pounds and that is sixty per cent of the original weight of the fleece.

mining wool values. The grower knows little of these things. The way to get the full value from a clip is to have it sold by an agency whose manager knows as much as the dealer about all of the factors influencing price. This is orderly marketing. Some day we'll come to it.

AMERICAN ASSOCIATION OF WOOLEN AND WORSTED MANUFACTURERS TO BE TAKEN OVER BY INSTITUTE

THE activities of the American Association of Woolen and Worsted Manufacturers are to be transferred to the Wool Institute, Inc. Announcement to this effect was made by the Board of Directors of the association on April 17. Its affairs will be in the hands of a liquidating committee until July first when it will be absorbed by the Institute.

The American Association of Woolen and Worsted Manufacturers was organized in 1905 for the purpose of correcting certain abuses that existed in the trade at that time. Its work has been of a different character to that of the National Association of Wool Manufacturers, which came into existence just prior to the organization of the National Wool Growers Association in 1864 and for the same purpose—to secure proper protection for its members in the tariff law that was being framed at that time. The American Association of Woolen and Worsted Manufacturers has been considered mainly as an association of merchandisers, while the National Association of Wool Manufacturers is regarded as an association of manufacturers. The latter organization continues as an individual body.

In its handling of questions of piracy, legislation on giving cuts, cost accounting, and other important matters, the American Association of Woolen and Worsted Manufacturers has served its members commendably, but with changed conditions in the industry, the officials, according to the Daily News Record of April 18, believe that the decision to turn its affairs over to the Wool Institute is a judicious one. The notice sent out to its members reads, in part, as follows:

The situation in which the woolen and worsted industry finds itself is such as to need the most intelligent and complete cooperation possible. Knowing this to be so, your officers initiated steps which led ultimately to the organization of the Wool Institute. Your officers believe that through the Institute the desired cooperation can be brought about. They also believe that the Institute can preform all of the services necessary for the advancement of your interests. * * * * *

Your board arrives at this conclusion in full recognition of the services of your association throughout the years and the firm belief that the Institute can and will efficiently carry on these services. They allow the association to be absorbed by the Institute only because of complete confidence in its ability to carry on the association's activities in your interest and in recognition of the fact that the industry can be best served by one powerful organization, departmentized to do all the things necessary for its advancement rather than have the necessary services preformed by several organizations. * * * *

An announcement similar to the above has also been made by the National Association of Worsted and Woolen Spinners. This organization expects to be in a position to end its activities in May.

MINNESOTA COOPERATIVE REPORTS 1928 OPERATIONS

A TOTAL of 900,013 pounds of wool was handled by the Minnesota Cooperative Wool Growers Association for 2661 wool growers during 1928. In 1927 the association received 589,109 pounds of wool from 1657 patrons, and in 1924, the year of its organization, 242,964 pounds from 1200 growers.

The average selling price of the 1928 wools was 43.81 cents. Sales of the principal grades of wool, F. O. B. Wabasha were:

Bright $\frac{1}{2}$ and fine staple	\$.44 $\frac{1}{2}$
Semi A $\frac{1}{2}$ and fine staple37 $\frac{1}{2}$
Semi B $\frac{1}{2}$ and fine staple31
Bright $\frac{3}{4}$ and $\frac{1}{4}$ staple49 $\frac{1}{2}$
Semi A $\frac{3}{4}$ and $\frac{1}{4}$ staple43 $\frac{1}{2}$
Semi B $\frac{3}{4}$ and $\frac{1}{4}$ staple39
Bright Low $\frac{1}{4}$ staple46 $\frac{1}{2}$
Semi A Low $\frac{1}{4}$ staple41 $\frac{1}{2}$

Growers were paid, F. O. B. Wabasha, three and one half cents less than the above prices.

The report of the activities of the Minnesota Wool Growers Cooperative Association was given at its annual meeting, which took place at St. Paul on February 21, and printed in the first issue

of the Minnesota Cooperative Wool Growers Monthly, which is to be sent to members of the association for the purpose of keeping them informed on wool market conditions.

Mr. Alex Huddleston is president and secretary of the Minnesota Cooperative; R. E. Jones, warehouse manager; L. H. Smith, vice president; and J. T. Johnson, treasurer. The office of the association is at Wabasha, Minnesota.

A THREE-DECK SHEEP CAR

A FREIGHT car especially constructed for the handling of sheep and small animals is to be tried out during the coming summer. This car is the invention of Mr. I. V. Edgerton and is being built by the Northern Car Company of Chicago. A few shipments were made in a car of this type during last year, but there have been no reports of its use from western states. The company stated that the car is patterned in part after the poultry cars which are now in use. There are three floors or decks, and a narrow passage in the center permits the attendant to place feed and water before the stock at any time, thus removing the necessity for stopping and unloading for feed and water. The extra deck makes up for the space lost in providing the passage in the car and it is stated that approximately the same number and weight of lambs will be handled as in the present type of cars of the same length.

An extra charge is to be made for the use of such cars and the inventor claims that the amount of this charge will be much more than offset by the saving in shrinkage of lambs and in the time they are in transit.

LAMB ADVERTISED ON SHEEP FEEDING BARN

FOR the past seven years the Stockdale Sheep Feeding Yards at Stockdale, Illinois, have carried large "Eat More Lamb" signs on two of their barns. Mr. George H. Weitz, manager of these yards, writes that he has no positive proof that these signs have helped toward the consumption of larger quantities of lamb, but feels that they have played a good part in building up the lamb market.

PLANTS POISONOUS TO SHEEP

IV. LOCO WEEDS

By C. Dwight Marsh, U. S. Bureau of Animal Industry

FOR more than half a century there have been stories of locoed animals. The word loco is from the Spanish meaning crazy, and was given because of the peculiar and erratic symptoms produced in the affected animals. These symptoms were especially characteristic when seen in horses. A badly locoed animal apparently loses coordinated control of its muscles, its gait becomes irregular, it "steps high" over slight obstructions, it may refuse to enter a barn, it can not be led or backed, and after being started it may go in a more or less straight line until it strikes a fence or even a building. A sudden noise may make it rear and even fall over. In some cases it eats very little and eventually starves to death. Cattle show similar symptoms, although the nervous behavior is not so marked. Sheep, too, may become locoed and die, but in them the symptoms are even less marked than in cattle. These conditions were noted over a wide stretch of country, and it was well known that the losses of horses, cattle and sheep, ascribed to loco, were very great.

While many people thought that the loco disease was caused by some plant on which the animals grazed, there was much question as to what plant was the cause, and there were many who declared that loco was a myth and that the losses of livestock were produced by starvation or animal parasites or both. Among the skeptics were perhaps most of the scientific men who felt certain that no plant origin was proved and considered it most probable that plants had nothing to do with the disease. In regard to the heavy losses of livestock, however there was little question. Complaints of locoed stock came from the whole of the semi-arid region east of the Rockies and from the Southwest as far as southern California. However, even in regard to the extent of the losses there was some question. At the time when the "dry farmers" were homesteading areas in the Great Plains, stockmen who had for years been utiliz-

ing the public lands for grazing purposes were accused of magnifying the loco losses in order to discourage the appropriation for farms of lands which they had been using as open range.

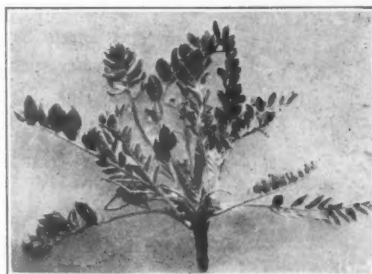
It should be remembered that in the early days when the first reports of locoed animals were made, very little attention was paid by stockmen to the plants which were actually eaten by their herds. It was assumed that any place fairly well covered with vegetation was good grazing ground, and there was no reason to suspect that any of the plants would be harmful.

When the U. S. Department of Agriculture took up the serious study of the loco problem some twenty-four years ago, it was found that among those who believed that a plant caused the disease, there was lack of agreement in regard to the plant, and, in fact, the first work of the Department seemed to make it probable that in sheep, and probably in other animals, the real cause was an infestation by animal parasites.

By a series of experimental feedings it was eventually shown that there were at least two loco plants. It was found that the harm was done by prolonged feeding over a period of weeks or months. These two plants were the "white loco", (*Oxytropis lamberti*) and the "purple" loco (*Astragalus mollissimus*).

The Loco Plants

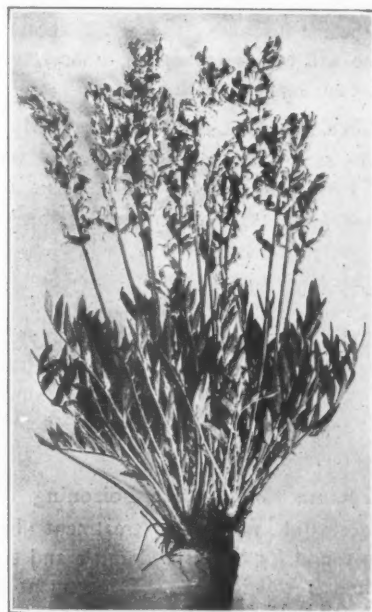
The white loco shown in the picture is a plant of the pea family and is found through the Great Plains region from northern Canada to the Panhandle of Texas and west to Idaho, Utah, and central Arizona. The blossom is white, purplish, or reddish, and the plant sometimes grows in such profusion that, from a distance a field of it resembles a snow-covered area. All classes of livestock are affected by it, and it is said to be especially destructive to black-faced sheep, some sheep owners claiming that they have had,



A Small Plant of the Purple Loco (*Astragalus mollissimus*).



The Blue Loco (*Astragalus diphyssus*).



The White Loco (*Oxytropis lamberti*) in Blossom.



A Field of the White Loco in Blossom Showing the Luxuriance with Which It Sometimes Grows.

at times, one hundred per cent losses. When the fruit of the white loco is dry the seeds are loose in the pods, and, if hit by a person walking, rattle with a sound which closely resembles that made by a rattlesnake. On this account it is sometimes known as "rattleweed".

The purple loco has leaves of a deeper olive green, inconspicuous dark purple flowers, and pods which are nearly black. It is distributed much less widely than the white loco, being found northward to the southern line of South Dakota and extending nearly to the southern boundary of New Mexico. It is found east to the middle of Oklahoma and west to central Colorado and New Mexico. The purple loco affects horses especially. It rarely, if ever affects cattle and it is not known to have poisoned sheep. Because of its pronounced effect upon horses, it has sometimes been known as the "true loco" and as many horses have been lost in Texas, presumably from eating this plant, it has been called the "Texas loco".

At least seven plants produce loco symptoms in livestock, but the white and purple loco cause most of the losses. All of these with the exception of the white loco, which is an *Oxytropis*, belong to the genus known to botanists as *Astragalus*.

Perhaps the most important of the other loco weeds is the "blue loco" (*Astragalus diphyus*) which is found in New Mexico, Arizona, Utah, and Nevada. In Arizona and western New Mexico it is commonly known as "the loco". It

has deep green leaves and inflated pods in which the seeds rattle so that it, too, is sometimes called "rattleweed." Besides the true loco weeds there are three other species of *Astragalus* that poison livestock, but do not produce characteristic loco symptoms.

Losses from Loco Weeds

No poisonous plants have caused such heavy losses as those produced by loco weeds. It has been estimated that in some localities at least 75 per cent of the horses have died from this cause. Probably the losses of cattle have been even greater. Some cattle owners have been forced into bankruptcy by the plant. Sheepmen in some states have suffered heavily. Financial losses have been estimated not as thousands or hundreds of thousands of dollars, but as millions.

Loco-Eating Habit

Sometimes animals acquire a loco habit and devote themselves entirely to these plants, a habit that is sometimes likened to the drug habits of men. This is by no means, however, true of all animals. Some will eat the plant for a short time and then leave it entirely.

Loco Losses Less Than Formerly

The loco weeds grow early in the season, before the grasses, and, generally speaking, animals acquire the habit at this time when there is a lack of other forage. There is a direct connection between short feed and loco-eating. Some of the loco weeds disappear in the summer, but others, like the white and purple locoes, grow the year around, and animals may eat these at any time when there is a lack of suitable forage.

Remedies for Loco Poisoning

Successful medicinal treatment has been found for horses and cattle and the method is given in U. S. Department of Agriculture Farmers' Bulletin 1054. There seems to be no effective treatment for

sheep. All locoed animals should be well fed and given feed that will produce a laxative effect; there is nothing better than an alfalfa pasture.

Losses now are much less than in former years when horses and cattle were turned upon the range and given very little attention. When care is taken to have the animals provided with good forage, there are few losses from loco. One reason for a reduction of the losses of sheep is that the development of dry farming has, to a considerable extent, driven sheep grazing from the plains region where loco weeds are most prevalent.

(Previous articles in this series appeared in the July, September, and October issues of the National Wool Grower; others will be printed during the summer numbers.—Editor's Note)

UTAH SHEARING REGULATIONS

THE following rules and regulations governing the handling of sheep at shearing corrals were unanimously adopted at the Utah wool growers' convention held January 29-30, at Salt Lake City Utah.

- 1—All sheep must be handled in a careful and humane manner. Shearers must in all cases use both hands in catching and placing sheep on the shearing floor. Abuse of sheep will not be tolerated, such as kneeling on the abdomen, stomping or cutting off of teats or other cruel or injurious treatment.
 - 2—Sheep must not be allowed to fall from supply pen where such pen is elevated.
 - 3—The price of shearing being fair and ample, a good first class job is demanded.
 - 4—Fleece tiers must use care that each fleece is securely and well tied and that the inside of the fleece as much as possible be turned out.
 - 5—All black sheep must be shorn separately and the wool placed in a separate bag.
 - 6—Taglocks as much as practical must be sacked separately.
 - 7—Any person not living up to these rules will be subject to dismissal.
 - 8—Any shearer who deserts the job without giving due notice to the Corral Boss or refuses to complete a job started, shall be reported to the Secretary of this Association by the Corral Boss and his name shall be entered on a record kept for that purpose.
- Utah State Wool Growers Assn.

MAKING PASTURES OF LOGGED-OFF LAND

By W. L. Teutsch

LAST year we reported the remarkable progress that was being made in Coos County, Oregon, in the utilization of logged-off lands, for grazing sheep, after they have been burned and seeded to grass. Twenty thousand sheep are now grazing on the steep hillsides and in the narrow ravines of Coos County which were once shaded by a dense growth of Douglas fir or Port Orford cedar. These trees have been logged off, cut into lumber and sent to market in Japan, California, the Atlantic Coast, and other seaports of the world. In place of timber these lands are now producing wool and lamb and producing it thus far at a very low cost.

In three years, according to Harvey S. Hale, Coos County Agent, who has adopted this sheep expansion project as one of his important activities, the sheep increased from 5,000 to 20,000. By next fall he fully expects to have 30,000 sheep utilizing grass on Coos County's cut-over land. There are 262,000 acres of this logged-off land in Coos County and additions are being made each year. A state fire law requires that all logged-off land, upon completion of logging, must be burned in order to reduce the fire hazard. Immediately after burning is the ideal time for the seeding of grass. While it has not been generally done in the past, there is an increasing tendency for these burned-over areas to be seeded to grass in order to provide sheep range. Such burning provides a seed bed of ashes on which the seed is broadcast, the fall rains beating it into the ground. Excellent stands of grass result.

Airplane seeding has proved successful beyond doubt. The photograph shows the luxuriant stand of grass on logged-off lands about a year after seeding by airplane. This was done by the Coquille Valley Sheep Company at Coquille.

After observing many seedings in Coos County, County Agent Hale recommends the following mixture as containing grasses which will maintain themselves over a comparatively long period and provide abundant feed: White Clover, 1 pound; Burr Clover, 4 pounds; Orchard Grass, 4 pounds; English Rye Grass, 8 pounds; Tall Meadow Oat Grass, 4 pounds. This mixture is seeded at the rate of ten pounds per acre and at the



Typical Logged-off Land Showing the Grass Just Coming on Shortly After Seeding.

prices which prevailed last fall, costs about \$1.50 per acre for seed. The use of cheap burn mixtures for seeding these logged-off lands is an expensive practice even though seed cost is lower. Grasses in such burn mixtures usually do not maintain good stands of grass over a



The Stand of Grass Obtained as a Result of Airplane Seeding in Coos County.

period of years. English Rye Grass is particularly persistent under coast conditions, Mr. Hale has found. In some

pastures seeded twenty years ago it is still found to be predominant.

An indication of the interest in the sheep business in this country, which borders the Pacific Ocean, is found in the attendance at a series of sheep management and disease meetings scheduled by County Agent Hale. These meetings were held at Powers, Myrtle Point, Bridge, and Coquille in Coos County, and at Langlois in Curry County. Nearly 150 sheepmen participated in these meetings. A few years ago there were probably not more than a dozen sheepmen in the two counties. Max Dement, Powers, with 2000 sheep is perhaps the largest grower; Pat Easley, Powers, has 800; Miller Bros., Coquille, 800; Evernden and Cooley, Myrtle Point, 700. The McCleay Estate in Curry County runs 2000 sheep, the McKenzie Bros., 1000 and Harvey Smith around 600.

Thus far practically no feeding of sheep has been done in Coos County. The temperate Pacific breezes warmed by the Japanese current provide a mild climate and grass grows the year 'round. Some lambing is done in January, but the general practice is to lamb during February. It is believed that lambs from this territory can be grown out and marketed in California during June and early July, after the California lamb crop has been moved and before the Nevada crop comes on.

On the logged-off lands of Columbia County lying along the Columbia River, sheep can be found in increased numbers. A 100 per cent increase is reported over the number last year. Conditions in the county for sheep are somewhat similar to those prevailing in Coos, but the higher elevation will

carry more snow and no doubt some winter feeding will be necessary. In this county, too, a wool and goat raisers association has been formed.

SHEEPMEN OF LINCOLN COUNTY, WYOMING, IN CONVENTION

ALTHOUGH severe weather conditions prevented the usual number of wool growers from attending the twenty-third annual convention of the Lincoln County (Wyoming) Wool Growers Association at Kemmerer on April 5th and 6th, a very representative group of its members were present and enjoyed the meeting. An exceptionally instructive program had been arranged by the officials of the organization and much constructive work was accomplished. Sheepmen of Lincoln County have a very strong and progressive organization, led by J. D. Noblitt of Cokeville, as president, B. J. Carolla of Rock Springs, as vice president, and Lester G. Baker of Kemmerer, as secretary-treasurer. These men were continued in office for the coming year.

On the opening day, Dr. A. F. Vass of the University of Wyoming presented the results of studies made under his direction on range costs and proper management of range flocks. Predatory animal control work, especially the ten-year plan of operation, was discussed by Albert M. Day, who conducts the Biological Survey work in Wyoming.

Shipping affairs also received full recognition. Sheepmen expressed their appreciation of the excellent assistance given by the railroads during the past severe winter in the movement of hay and grain. The desire to continue the existing cooperation between shippers and carriers was expressed by Mr. D. E. Clark, general livestock agent of the Union Pacific System, and Mr. R. A. Pearce, assistant superintendent of the Oregon Short Line Railroad. In discussing the improved shipping conditions, Mr. Pearce emphasized the importance of placing orders for cars as far in advance of the loading date as possible and of being in readiness to load the stock upon the arrival of the train. Both of these requests, it was pointed out, work to the advantage of the shipper as much as to that of the carriers in expediting the transportation of stock and the avoidance of loss by shrinkage.

Different phases of forest grazing affairs were taken up by Forest Supervisor C. E. Favre, Assistant District Forester

C. N. Woods of Ogden, Utah, and A. C. McCain, supervisor of the Teton National Forest. A special evening session was held during which the members of the association met with the forest officials and considered the grazing allotments for the present year.

The report of Dr. Y. R. Balmer, secretary of the State Board of Sheep Commissioners, showed that the Wyoming flocks were freer from scabies than they had been for sometime and eradication of the disease now seems assured.

The convention was addressed on the second day by Secretary J. B. Wilson of the state wool grower's organization. He gave to the Lincoln County men a survey of conditions within the state and nationally that are of deep concern to wool growers. The method of leasing state school lands, the public domain question, taxes, the present situation in the wool market, proposed additions to the national forests, and the readjustments in the wool tariff recommended by the National Wool Growers Association were all covered by Secretary Wilson. He also reviewed the lamb promotion work of the National Association and indicated the value and importance of its continuation on a broader scale. This part of his address was made in connection with a lamb cutting demonstration given by Professor Wheeler of the Extension Department of the University of Wyoming. Professor Wheeler used the Hartzell method in cutting up the carcass, and the audience, which was enlarged for this session by housewives and retailer butchers of Kemmerer, was very much interested. Opinion was expressed that the demonstration will be productive of good results, especially in an increased use of lamb in the mining camps adjacent to Kemmerer.

Dr. R. A. Hocker of the State Fish and Game Commission and President A. G. Crane of the University of Wyoming also gave interesting discourses at the Saturday sessions.

At the business meeting the association urged, by resolution, that all its members should pledge themselves to the payment of one cent per head on all sheep and lambs sold for feeder or mutton purposes to the National Wool Growers Association

to be expended by it deemed essential for the welfare of the sheep growing industry.

Recommendation was also made that an assessment of two cents per head be made for use in predatory animal control work which is carried on cooperatively between the Biological Survey and the association. Forest Service officials were asked to assist in the collection of this fund by calling for a receipt, which is to be issued by the secretary of the association for the payment of one-half the levy, at the time the sheep enter the forests. The other part of the assessment will be collected as required. The ten-year predatory animal program was also endorsed. It was voted to continue the association's method of handling the stray sheep question for another year. The plan provides that the gatherers of stray sheep shall be selected by the officers of the Lincoln County Wool Growers Association and that no sheep shall be pulled except on orders written upon the official forms of the association, and that no sheep whose ownership cannot be determined shall be disposed of except through the association. Before this procedure in the handling of stray sheep was adopted, it was possible for stray gatherers, usually self-appointed, to obtain and appropriate for their own use quite a large number of sheep each year.

A resolution was passed opposing the enlargement of existing national forests and the creation of new ones within the State of Wyoming. Federal control of the public domain was likewise vigorously opposed. The increase in forest grazing fees and the manner of determining them were criticised as not being fair and equitable. The association asked, through a resolution, that in cases where permittees are taking fewer sheep onto the forests in order to improve the growth of forage on their allotments, no reduction be made in the number of sheep covered in their permits, and that no fees be collected for this nonuse.

Shearing rates were fixed by the association at 15 cents per head when a thick comb is used, and 13 cents with thin combs, both prices, to include board; the price of hand shearing was set at 15 cents, the shearers to board themselves.

ENLARGEMENT OF BIG HORN NATIONAL FOREST OPPOSED

SHEEPMEN of Natrona County, Wyoming, voiced their opposition to the proposed enlargement of the Big Horn National Forest at a meeting at Casper, Wyoming, on March 30. The increase under consideration amounts to 364,320 acres, and its inclusion in the reserve will deprive the Natrona County sheepmen of their summer grazing area. The resolution adopted in this connection also stated the opposition of the association members to increasing any other national forest in Wyoming and to the creation of new reserves within the state.

CARBON COUNTY WOOL GROWERS MEET

MEMBERS of the Carbon County (Wyoming) Wool Growers Association held their annual gathering at Rawlins on April first. Discussion centered principally around the bill recently passed by the Colorado legislature (reviewed elsewhere in this issue) regulating the use of the public domain by cattle and sheep owners. General opinion of the wool growers of this part of Wyoming was that the law could not stand up under a test as to its constitutionality, as "it parcels out the public domain for grazing purposes".

Wool marketing conditions, presented by Secretary W. W. Daley of the association, also received much attention, and an interesting talk on the poisonous plants of the locality, with exhibits of specimens, was made by County Agent John J. McElroy. Predatory animal control work was reviewed by Mr. Albert M. Day, leader of the work for the state, and Attorney C. A. Brimmer explained the new law relating to the leasing of state and school lands.

The officers of the Carbon County Wool Growers Association are L. E. Vivion, president; Day P. Espy, vice president, John K. Hartt, treasurer, and W. W. Daley, secretary.

SHEEP DAY AT KANSAS A.C.

THAT interest in sheep production is growing in Kansas is evidenced by the attendance at the second annual sheep day sponsored by the Kansas State Agricultural College, at Manhattan, April 6. More than 300 attended the one-day program as compared to around 200 who came to the sheep day in 1928.

The Kansas sheepmen and the college specialists see a new day dawning for

City; and Tommie Dean, shepherd of the college flock.

Interest in the farm flock has been on a steady increase for several years, Mr. Reed said in answering the questions of visitors. Much of this interest now centers in economical production methods. Reasons for the favorable situation were presented by Dr. McCampbell in his address to the sheep farmers.

"Satisfactory returns from the farm flock depend primarily upon the production and marketing of a prime lamb before July 1 and in satisfactory farm flock production lambs represent around three-fourths and the wool one-fourth of the gross income," he declared. "This emphasizes the importance of the lamb as the chief source of income and the necessity of observing every precaution to insure the production of the very best lamb possible in the shortest time possible, and getting it to market before July 1."

F. E. Charles.



Three Kansans who took part in the second annual sheep day program at the Kansas State Agricultural College at Manhattan, April 6. From left to right, Tommy Dean, shepherd of the college flock; Bert C. Culp, Beloit, perhaps the largest sheep breeder in Kansas and a member of the state board of regents; and Harry E. Reed, staff sheep specialist for the college.

them. They see an opportunity to capitalize on an early summer fat lamb market because of the availability of an abundance of alfalfa and corn in the sunflower state and because the supply of sheep today is far less than it has been in years past.

The lamb market, according to Dr. C. W. McCampbell, head of the college animal husbandry department, offers one of the most stable price situations in agriculture, and the production of fat lambs for market in May and June has proved to be a highly profitable venture.

Demonstrations in the care of the farm flock were given at the K.S.A.C. sheep day by H. E. Reed, staff specialist; A. M. Patterson, assistant secretary of the American Royal Livestock show, Kansas

WENSLEYDALE RAMS TO THIS COUNTRY

TWO purebred Wensleydale rams have been imported from England, and, at the Circle ranch in Newark valley, White Pine County, Nevada, will be crossed with purebred Rambouillet ewes. The English rams, which have a distinguished ancestry, are similar in conformation to the Lincoln breed in the United States, but have wool finer in quality and more compact.

C. R. Townsend, district extension agent for White Pine and Eureka counties, will study the results of crossing the two breeds as to handling qualities on the range and quality of wool.

Wool Culling Experiment in Nevada

Report of Second Year's Work

By F. W. Wilson, University of Nevada

IMPORTANT differences in wool grading work in Nevada from that usually noted in articles from other states are: (1) Length of staple and uniformity of fleece and flock are stressed in addition to pounds of wool per head; (2) The wool is marketed through a cooperative association where wool grading is practiced. The wool is then sold according to grade, enabling the owners to realize full value in dollars and cents for an improved or superior article.

The second year of wool grading with the sheep of Smith Creek Livestock Company, Elko, show the reserves to be the most profitable to the extent of seventy-five cents per head over those culled because of inferior fleeces.

The work actually got started on a basis where records could be kept when the sheep were graded October 28, 1927. The sheep were graded by the touch method, the writer grading around 2,000 head per day.

The factors kept in mind for better fleeces were length of staple, and fineness of texture; density of fleece and size of ewe were also important points considered in culling. In other words the grading in October, 1927, was made with the idea of making up a band of 2800 head which, if possible, would grade fine combing or French combing.

In May the sheep were sheared, the wool sacked separately and all sent to the Pacific Cooperative Wool Warehouse in San Francisco. Mr. J. J. Durham, U. S. licensed grader and manager of the San Francisco warehouse, graded two sample bags of wool from the reserve flock and two from the cull flocks. The grading sheets were as follows:

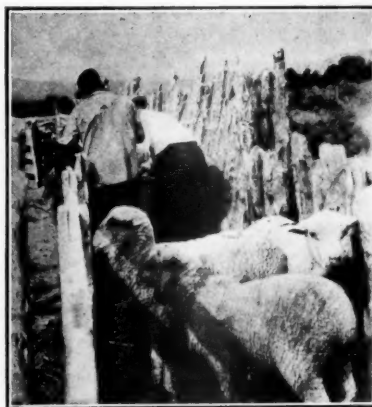
Reserves, Pounds—Fine Combing, 164; French Combing, 516; One-half Clothing, 26; Reserves, Per Cent—Fine Combing, 24%; French Combing, 73%; One-half Clothing, 3%.

Culls, Pounds—Fine Clothing, 9; French Combing, 252; Fine Clothing, 53; One-half Clothing, 266; Three-eighths Clothing, 9; One-fourth Clothing, 5.

Culls, Per Cent—Fine Combing, 1½%;

French Combing, 42%; Fine Clothing, 9%; One-half Clothing, 45%; Three-eighths Clothing, 1½%; One-fourth Clothing, 1%.

From the above table it will be noted that there was an error of 3 per cent made in the field grading by including 26 pounds of half-blood clothing wool. There was also a possible error of 1½ per cent



Grading the Sheep at the Smith Creek Livestock Company, Elko, Nevada.

made when one ewe with fine combing escaped. Since sheep are sheared in May and graded in October before the wool is more than half grown, an error of 4 to 5 per cent was expected. Under range conditions it is to be expected that a certain per cent of sheep with wool normally of French combing or combing length will meet with adversity through the winter, which reflects in the quantity and quality of the fleece, necessitating a clothing grade if weak staple is discovered.

During the process of shearing both reserves and culls the writer weighed fifty average fleeces from each flock. The results were:

Reserves	50 fleeces.....average	9.34 lbs.
Culls	" " " " " "	7.5
Difference		1.84 lbs.

Figuring the wool at the market price for each grade from the grade sheets the reserves returned their owners 75 cents per head above the culls.

The Smith Creek Livestock Company bred Hampshire rams to the cull ewes and

sold all of the produce as lambs. The ewe lambs from the reserves will be retained in the flock for the future foundation ewes.

In 1928 the management decided to make two reserve bands of 2,000 each. This was done by adding about 1,000 yearlings and regrading the entire flock. Because of the higher values now found in the coarser wools a number of ewes with half and three-eighths blood long staple were also included in the reserves. Length of staple and size for good lamb production were emphasized perhaps more in 1928 than in 1927.

In all of the grading work the writer has had the full cooperation of the Pacific Cooperative Wool Growers of Portland and San Francisco in grading and checking field results. Mr. J. A. McBride and Mr. Alex Heguy of the Smith Creek Livestock Company have assisted materially by adopting a new marking and branding system. Mr. McBride is also one of the Nevada directors in the Pacific Cooperative Wool Growers.

The detail of sheep grading for better wool is given herein because of its importance to the sheep industry in Nevada. There are over a million and a quarter sheep in Nevada shearing less than eight pounds per head and of clothing length. A large percentage of these sheep can be graded and bred to shear 10 pounds per head and shear French combing or fine combing and thereby increase Nevada's wool income 200,000 to 500,000 dollars per year.

INSTRUCTIONS FOR LAMBING IN RANGE HERDS

MR. M. A. SMITH of Salt Lake City has put in printed form a set of rules and instructions on the handling of ewes and lambs during the lambing season for use by the men Mr. Smith and his associates employ. Organization of the lambing crews, the care and handling of the drop bands, the gathering of the ewes with young lambs, docking, and control of coyotes,—the main topics of the booklet—are considered in the light of modern methods and are given in sufficient detail to enable even the inexperienced helper to do his work properly.

THE WOOL SACK

Boston Values of Wool of Various Grades and Shrinkages

Current prices at Boston for range wools are presented in the quotations printed below. The price shown for the clean value of each of the various grades is taken from the weekly market review for May 3, 1929, published by the Bureau of Agricultural Economics of the United States Department of Agriculture. The figure used is the average between the high and low quotations as published in the report for each grade.

Growers who wish to compute the home value of their clips will need to make allowance in the grade price used according as the amount they have of each grade is above or below the aver-

age quality of that grade. In computing necessary expense and service between the ranch and the mill about $2\frac{1}{2}$ cents may be taken as the customary charge made by the commission concerns for selling. This figure also includes storage up to five months after arrival. Rail freight rates vary from \$1.94 per hundred pounds at Cheyenne, Wyoming, to \$2.70 per hundred pounds from Pacific Coast points. From the coast states and the western parts of Oregon, Idaho, Nevada, and Utah, lower transportation rates are available for shipments going to the ports for reshipment to Boston via the Panama Canal.

VALUES AT BOSTON

GRADE	CLEAN VALUE	GREASE VALUE
64's-70's (Fine) Combing	\$1.02	If shrinkage 68%, grease value $32\frac{1}{2}$ c " " 66% " " $34\frac{1}{2}$ c " " 64% " " $36\frac{1}{2}$ c " " 62% " " $38\frac{1}{2}$ c
64's-70's (Fine) French Combing	.98½	
64's-70's (Fine) Clothing	.94½	
58's-60's (½ Blood) Combing	.99	If shrinkage 66%, grease value $33\frac{1}{2}$ c " " 64% " " $35\frac{1}{2}$ c " " 62% " " $37\frac{1}{2}$ c " " 60% " " $39\frac{1}{2}$ c
58's-60's (½ Blood) Clothing	.92½	
56's (¾ Blood) Combing	.91	If shrinkage 58%, grease value 38c " " 56% " " 40c " " 54% " " $41\frac{1}{4}$ c " " 52% " " $43\frac{1}{2}$ c
48's-50's (¼ Blood) Combing	.82	If shrinkage 54%, grease value $37\frac{1}{2}$ c " " 52% " " 39c " " 50% " " 41c " " 48% " " $42\frac{1}{2}$ c
46's (Low ¼ Blood) Combing	.74½	If shrinkage 48%, grease value $38\frac{1}{2}$ c " " 46% " " 40c " " 44% " " $41\frac{1}{2}$ c " " 42% " " 43c

WESTERN WOOL SALES

The following report of wool sales during the week of April 29 were received from the secretaries of the state wool growers' associations:

In Arizona 100,000 pounds of wool, grading fine medium clothing, was sold at 29 cents, and another lot of 64,000 pounds, composed of fine medium clothing and French combing wool in about equal parts, brought 31 cents; both lots are estimated to shrink about 62 per cent.

A clip totaling more than 1000 fleeces

is reported by the California Association as having been purchased in Solano County at 34 cents. This clip is said to be practically a straight fine clothing wool, shrinking around 57 per cent. Mixed clips of fine and medium wools shrinking around 54 per cent sold in the same district at 35 cents. In Mendocino County considerable activity occurred during the first week of May. Wool shrinking about 57 per cent for fine clothing, French combing, and a small percentage of staple was sold at 32 and 33 cents. Mixed clips of the same district,

with shrinkage around 54 per cent, sold at the same price as mentioned above. In Tehama County, California, some sales have been made at $31\frac{1}{2}$ cents; these wools grade mostly fine and fine medium. French combing, and shrink 62 per cent. Other wools were bought at 27 to 33 cents, with one or two growers having medium wools claiming that 35 cents was offered them but refused.

On May 5 the wool pools of Gooding and Lincoln counties (Idaho) sold for $33\frac{1}{2}$ cents. There were 21,500 fleeces sold in these two pools; this about represents the increase of sheep in these two counties in the past few years. In order to effect this sale, it was agreed to exclude all fine wool and all old ewes. As sold this wool will grade probably 70 per cent three-eighths blood. For the fine wool 28 cents was offered and rejected. This sale is about 3 cents net per pound below last year's price. Late in April, Wm. Newman, of Twin Falls, sold a clip of straight three-eighths blood wool for 34 cents. The A. H. Brailsford clip of 3400 fleeces of fine and fine medium wool has been sold at 32 cents.

The Nevada Association reports the sale of 5000 fleeces in Elko County at 30 cents. Details as to grade and shrinkage are not given, but the clip was a typical range one in above average condition.

From New Mexico word is received that there has been no recent activity in wool in that state.

Enoch Pearson of Pendleton, Oregon, sold 7500 fleeces of fine wool at $25\frac{1}{2}$ cents and 3000 crossbred fleeces at $30\frac{1}{4}$ cents. Three thousand crossbred fleeces and 500 fine-wool fleeces were sold by Lee Savely of Echo at 31 cents; all this wool is considered heavy shrinking. At Robinett, just north of Baker, 2400 fleeces of three-eighths and half-blood wool, shrinking around 7 per cent, was purchased by Jeremiah Williams and Company at $33\frac{1}{8}$ cents.

The Texas report is that about 4,000-000 pounds of wool have been sold at prices ranging from 28 to 33 cents, f. o. b. cars Texas shipping points. All of these

wools are of a fine grade, but first shorn wools are not of such good staple as those sheared later in the season. Practically 80 per cent of this wool has been contracted on the sheep's back and some will not be shorn for some time.

The Washington Association reports that 4000 fleeces, principally three-eighths and quarter blood wool shrinking around 57 per cent, sold at 33 cents, with no discount for tags. McGuffie and Stewart sold 5000 fleeces, principally three-eighths and quarter blood with a sprinkling of fine wool, estimated shrink 58 per cent, at 32½ cents. Both of these lots were purchased by the Oregon City Mills.

In Utah, three thousand fleeces belonging to B. Adams at American Fork, Utah, were purchased by the French Worsted Mills at 33¾ cents, and the same firm bought a similar amount of wool from Bert Adamson at 32 cents. Draper & Co. have secured 12,500 fleeces of Vernal wool at 32½ cents. A large quantity of wool from that section has been taken on consignment by both Boston and St. Louis buyers, with advances ranging from 25 to 30 cents a pound. Hallowell, Jones & Donald bought 20,000 fleeces at 32½ cents. Some wools at Black Rock and Milford have been purchased at 31 cents.

his own problem to solve and approaches the marketing of the new clip with an eye out to his own advantage.

This is a very sketchy survey of the wool situation. The outstanding feature of the situation is that the wool trade has held off from contracting. Of course there can be no complaint in regard to this, as the grower on his side has been constantly urged to abstain from contracting his clip. It follows, therefore, that such part of the clip as is actually sold will be priced according to its merits to an unusual degree. Neither can there be any legitimate complaint over this feature. Theoretically it is the ideal way to buy and sell wool, and what universally prevails when once it is out of the hands of the grower.

Late happenings in all sections where buying has been recently active show that what has been done has followed mutual concessions in values. Buyers have paid more than they expected, while the growers have been forced to accept less money than they stood out for at the beginning of the season. Advances here are that in California, 21 to 25 cents has been paid for Southern wools, 27 to 28 cents for Middle Counties and 32 to 33 cents for Northern. In Idaho strictly medium clips have sold at 32 to 33 cents and mixed clips with a fine edge at 30 to 31 cents.

Field men report the Utah season as opening very slowly. Shearing delayed by stormy weather has held back operations, while the "irrepressible conflict" over prices is also a factor. There has been considerable talk of consignments in that state, and a heavy movement of that description seems assured. Dealers are reported willing to accept consignments. As far as actual sales are concerned, 26½ to 28 cents has been paid in the south, while in the Vernal district the going price is 30 to 32 cents, which compares with 33 to 34 cents paid on some of the early contracts. Advances on consignments in Utah are said to have been made at 25 cents a pound, with interest.

Shearing operations in Colorado are progressing as rapidly as weather conditions permit. The new wools are reported as turning out rather better than expect-

THE BOSTON WOOL MARKET

By Henry A. Kidder

MAY DAY brings little if any relief to the wool trade from the difficult conditions previously noted. There are several contributing causes to the present uncertainty, prominent among which are unfavorable weather in the West and consequent delays in shearing, and difficult commercial and financial conditions in the East. The most noticeable result of these and other factors operative at the moment is an accentuation of the usual differences of opinion between growers and buyers as to what is to be considered a fair price for this year's domestic wool clip. This conflict over wool values is still going on, though apparently nearing a solution in some sections.

Thus far trading has been most active in three states, California, Idaho, and Texas, active buying having started in the last state in the closing days of April. While it is difficult to keep run of the the different trades from day to day, and consequently to estimate the total sales on a given day, it seems to be settled that actual purchases to date in April have totaled several million pounds. In California a recent estimate indicates that fully 25 per cent of the 1929 clip is already either sold or consigned. Substantial progress has also been made in southern Idaho in clearing the early shorn wools. Elsewhere relatively less has been

done. It is a fair statement that more of the new clip is still in the hands of growers than has been the case for years.

It is not necessary to go far afield to find reasons for the slow way in which the new clip season is developing. First in point of time and importance to the grower is the bad weather which has prevailed in so many sections of the range states. Shearing has been delayed and losses of both sheep and lambs are reported heavy. It has been previously noted that contracts before shearing have this year been smaller than for several seasons. Buyers have shown great reluctance to buying clips on their reputation, and are demanding to see the wool before putting up the money. To one who looks at the situation from the eastern angle, this is perfectly understandable.

High money rates also lead to caution in spreading wool funds over the West. Per cent means more when selling prices are pared to the quick, and every mill buyer is keeping a heavier hand in the trade scale than in seasons when everything is on the upgrade and the market is booming. Manufacturing conditions are also a pretty effective bar to speculative ventures in wool. It is difficult to get up much enthusiasm over the situation when the general demand of mill buyers and topmakers is for dollar clean wool. The grower and the dealer each has

ed, though contract prices do not now look as good as when made. Nevada is another state where shearing and buying are both starting slowly. Something has been done in the northeastern part of the state along the Idaho line and around Elko. Prices paid have ranged from 27 to 31 cents, according to the percentage of medium wool in mixed clips.

In other states very little is being done, though shearing is reported under way in Oregon, with eastern buyers taking little wool to date. Wyoming has been hard hit recently by severe snowstorms, unfavorable for both lambing and shearing. Montana will not shear until May or June. It will be noted that the lack of contracts in this year's operations takes away one incentive for early shearing. Last year, with over 125,000,000 pounds of wool under contract at this time, and the money ready as soon as the wool was delivered at the railroad siding, there was considerable urge to shear and deliver early.

The real surprise of the season came in the closing days of April, when a buying wave struck Texas. This was the more remarkable in view of the failure of a sealed bid sale held at San Angelo about a week earlier, when 200,000 pounds were offered and none sold owing to unsatisfactory bids. One Boston house, Draper & Co., took the trade by surprise by stepping in and taking over many of the clips in Sonora County and thereabouts. Initial buying ran well into the millions, and during the first week it was estimated that fully ten per cent of the season's clip of twelve-months' wool was out of growers' hands. At the start the range of values on twelve-months' wool was 29½ to 33 cents, a little eight-months' selling at 28½ cents.

This year's Texas clip is generally reported as not so good as last year, but it is a big state, and with a clip estimated by railroad men at forty to forty-two million pounds, it is conceivable that there may be both good and mediocre wool, and light and heavy clips, in the total production. The season in that state is now in full swing. Top price today in Texas is 33 cents, compared with 44 cents a year ago. Estim-

BIDS ON JERICHO POOL REJECTED

Reports received as the Wool Grower goes to press are to the effect that all bids made on the Jericho, Utah, wool pool on May 7 were refused. The high bid, 28 1/8 cents, was made by B. Harris Wool Company of St. Louis. It is understood that the pool will be disbanded and the members will sell their clips individually.

ed shrinkages on the early bought wools indicated a clean cost landed Boston of 90 cents or less, how much less can only be determined when the wool is given an actual test.

Similar delays in handling the new clip to those reported in the range states are noted in the fleece wool states of the Middle West. Only desultory buying has been going on to date, as growers are pretty stiff in their ideas, and buyers have constantly in mind unsatisfactory conditions in the Boston market. Some clips have been taken over by Boston buyers on the basis of 28 to 30 cents for fine and 33 to 35 cents for medium, mostly on the high side in each case. In other bright wool states, scattering purchases to date have been made on about the parity of Ohio prices.

In this market the situation is hardly clear enough to warrant an intelligent and accurate survey of future prospects. Further declines are noted in selling prices from those reported a month ago, but they are generally the result of clearance sales, and as such are hardly conclusive. Taking up Ohio wools as typical of the whole bright wool situation, it must be said that the market is distinctly weaker and lower than a month ago not only in asking prices but in actual sales. For instance, starting in March, Delaines sold at 45 cents, dropping from this level by steady stages, until now actual sales have been made at 41 cents, and buyers are bidding 40 cents.

Part of this decline may be due to a poorer selection in offerings, but certainly not all. Other Ohio grades show similar weakness. Fine unwashed clothing is quotable at 35 to 36 cents, a slump of about 5 cents for the month. Similar

results are noted in the trading in half-blood combing, and even greater declines must be quoted on the strictly medium grades. Half-blood combing is quotable today at 45 cents, three-eighths-blood combing at 46 to 47 cents and quarter-blood combing at 45 to 46 cents.

Conditions in the market for Territory wools have perhaps not shown quite so harsh a readjustment as fleeces. In making comparisons it is necessary to bear in mind that fleece quotations are in the grease, while Territories are quoted on the scoured basis—not scoured wools but scoured basis. Fully 5 cents the clean pound has been looped off Territory wool prices during the past month, perhaps more. Current quotations are \$1.02 to \$1.05 clean for fine and fine medium staple, 92 to 95 cents for fine and fine medium clothing, 98 cents at \$1 for half-blood staple, 90 to 95 cents for three-eighths-blood staple, 85 to 88 cents for quarter-blood staple and 78 to 80 cents for low quarter-blood.

The bulk of the trading of the past month, outside of fleeces, has been in Territory French combing and Texas twelve-months' wools from the old clip. Mill buyers have not taken very kindly to the early Arizonas, claiming prices are too high. The early Idahos have met with a better reception, especially for clips that were "bought right." Top-makers have been steady buyers of short fine wools of the French combing type, and it is reported that they have sold big weights of tops to be made from such wools. Prices reported paid, including some new clips, have ranged all the way from 90 cents to \$1, and in a few cases as high as \$1.02 is believed to have been secured. The lower figure was for average New Mexico and similar, and is hardly typical of the actual market.

The success or failure of the wool buying season hinges in large measure upon the attitude assumed by manufacturers. At present they are demanding that prices remain on a low level, and for this reason the wool trade is compelled to proceed very cautiously in taking over the new domestic clip.

NEWS AND VIEWS OF THE LAMB MARKET

CHICAGO

COLORADO kept the April lamb market well supplied, and during the last half of that period on a down grade, the close being substantially lower than at the peak reached during the third week when \$18.00 was paid on the Chicago market for choice woolled lambs. On the last round \$16.65 was the limit, but on the theory that the \$18.10 sale was out of line and taking difference in quality into the reckoning, the net decline from opening to close of the month was about \$1.00 per hundredweight, fat sheep losing as much.

But for Colorado's contribution the April market would have been bare. The advance guard of California's crop of spring lambs reported at the market gate, with a sprinkling of Arizonas and Texans, but these did not furnish sufficient product to fill a corner of the dressed market. As it was, supply of fed lambs proved ample at the prices, as dressed trade did not stand up as well as earlier in the season. Seven principal markets reported around 1,150,000 for the month or 100,000 more than in April, 1928, but as this computation included Denver's package of 170,000, much of which was recounted on reaching Chicago, the figures are of dubious value. Much of the time the bulk of Chicago's daily receipts were either from Denver, or elsewhere, direct to packers, the handful on the open market being insufficient to test values. Shearing at the big feed lots around Chicago was on a limited scale as packers secured the bulk of Colorado's crop at Denver and few lambs of the shearing type were available at other markets.

Dressed lamb broke about \$1 per hundredweight during the month. The carry-over from the last week was heavy, due to lack of condition which restricted purchasing. Late in April it was difficult to clear dressed carcasses on a \$27@29 basis, springer carcasses realizing \$31 to \$34 per hundredweight with selects to \$38. At Chicago choice old-crop carcasses earned premiums owing to scarcity, selling at \$33 to \$36 per hundredweight, which re-

flected predominance of low dressing stock.

Probably the outstanding feature of the April lamb supply was deficient condition; in other words feeders cheated on the feed bill. The bulk of winter production for that matter was of the lowest standard winter feeders have ever marketed.

Packers did not squawk about prices but their complaint concerning low yields and indifferent quality was constant.

Short yields mean poor quality and difficulty in vending the product. For this reason a 90-pound lamb sold on a parity with an 80-pound and got preference because killers got better carcasses with heavier type.

One reason for short feeding was the price. At \$17 per hundredweight feeders are disposed to take the short route to market, especially when the operation shows a substantial profit; on the other hand a low and unremunerative price invariably prompts carrying on feed in expectancy or hope of a better market. Unfavorable weather for making gains was a contributing influence. Low temperatures are usually good for putting on weight; this year the rule was violated.

As it was, feeders got off with minimum feed expense, whether they secured maximum possible results or not. As they made good money an era of good feeling existed. Between the decline in wool, a droopy dressed trade, and low quality of much of the product, killers did not get off well. If all that comes out of packing town on the subject is deserving of credence, handling lambs cost considerable money, especially late in the season. Why they went up against the game is their own business. Possibly the explanation is to be found in the fact that they utilized lamb to move heavy beef.

Market opinion for the spring and summer months is decidedly bullish, in fact, it could not be otherwise after winter performance. California springers from territory south of Sacramento reached killers in good condition, but northern Cali-

fornia had a hard winter which is likely to be reflected in a long feeder end to the late run. Tennessee and Kentucky will be late, but will market the usual crop of lambs in good condition. No one is looking for substantial increase in native lambs, especially at the central markets, as there is a tendency to utilize the native crop locally. Small town butchers are feeling cattle scarcity and are handling locally dressed lamb to make up deficiency in their volume. Formerly such butchers had access to adequate supplies of low grade local cattle, a disappearing bovine type, and lamb can be utilized to meet the emergency. Lamb is a summer meat, as pork is a winter standby, and it is safe prediction that local consumption will be steadily augmented, as beef is getting into the luxury category.

Usually the trade runs into a squall in June when the first Washington lambs trail early Idahos to the market, but if reports are to be credited the early Idaho crop is short this year. No disturbance is probable until later and the September market will be determined by the condition in which northern lambs leave the summer range.

Should nature decree a large percentage of feeder lambs the corn belt will take them. Stock cattle are even now as high as last year's peak under acute scarcity conditions and the feeder who takes on a bunch of calves next fall will be under the necessity of paying the highest prices in history, so that lambs will command a high market. And should the season be unfavorable killers will take lambs merely in good feeder flesh as they have done for months past, all but shutting feeders and shearers out of the game. Reports concerning spring trading are somewhat conflicting but suggest that feeders are taking time by the forelock. Colorado is credited with planning to handle more than last winter. On the low side \$11 per hundredweight has been located; on the high end of the contract range, \$13.50. One contract for ewe lambs in Montana is reported at \$14, the higher price trades being in mixed sex bands. One contract

for a band of Worland, Wyoming, lambs that will weigh 85 pounds at Omaha is reported to a packer at \$12. As is customary when feeders have had a profitable winter, they are more anxious to insure next season's supply than haggle over prices.

J. E. Poole.

OMAHA

RECEIPTS of sheep and lambs at Omaha during April at about 261,000 head established a record for that month, exceeding over 50,000 head any previous April total.

Despite this fact, and liberal marketings at other points, the trend of fat lamb prices was higher during the first three weeks. During the final ten days, however, heavy receipts began to have effect, the market declining steadily. As a result of the break, fed lambs closed \$1 below the end of March and springers wound up \$1.50@2.00 lower.

Nebraska and Colorado feed lots furnished 223,000 head, against 165,000 a year ago. On top of this increase the California run began earlier than a year ago. In all, California shipped 28,703 spring lambs to Omaha during April, against but 8,088 head for the same month of 1928, quite a few of which were billed direct to packers. Wyoming shot in twice as many fed lambs as last year, or 4,400 head.

During the first two weeks fed woolled lambs sold mainly at \$16.50@17.25. In the third week those who had bet on \$18 fed lambs almost collected. Top hit \$17.90 with the bulk at \$17.00@17.75 during that time. California spring lambs touched \$19.50 for the first time at Omaha since 1920 in the same week and natives reached \$19.25.

From this time on, the break set in and at the end of April Californias topped at \$17.50 with packers paying \$16.75@17.10 for the bulk. Fed lambs dropped to a \$15.50@15.70 basis, latter price the closing top.

Fed clipped lambs, largely from local feed lots, made up a generous share of arrivals during the month and sold mainly at \$15.25@16.25, with a top of \$16.50 that exceeded the 1928 peak on old crop shorn lambs. On the late break clippers

went down to \$14.50, this price also taking some California shorn lambs of the old crop.

California springers that trickled in before the rank and file showed up carried pretty good flesh, but when the big run got under way the earlier predictions of fewer killers from that state were verified. Late arrivals carried a larger feeder end than a year ago and real good or choice lambs were largely lacking.

Packers bought the tops and some second cuts freely at the decline and showed a preference for springers and fed clipped offerings. Fed woolled lambs met slow demand on the close, especially where quality or finish was lacking.

The general feeling now is that prices have come down too fast, and that there should be some reaction during May. The fact that eastern dressed lamb quotations have not declined proportionately, and prospects for a falling off in the salable supply of California in the near future, provide the main reasons for this prediction on the part of the trade.

Shearers paid \$16.00@16.25 freely for lambs, and up to \$17.25 at the high time, competing with killers on good fleshy kinds. In the late trade prices declined on the break in fats, finishing 25@50 cents under the end of March with a top quotation of \$16.25.

K. H. Kittoe.

KANSAS CITY

THE April sheep market was the most spectacular of any month this year. It climaxed a long period of many months and then experienced one of the quickest and most severe declines of the season. At the peak April 18, wool lambs sold up to \$17.85; shorn lambs \$16.25 and Arizona spring lambs \$19.85. In the next two days prices sagged slightly and in the following week direct-to-packer shipments began to pour into Chicago and the April close was \$2.50 to \$3.00 under the April high point and 50 to 75 cents under final quotations in March.

On the close winter-fed wool lambs brought \$15.50 to \$15.70; shorn lambs \$14.25 to \$14.65; Arizona spring lambs \$17.00 to \$17.25; shorn wethers \$9.25 to \$9.75 and shorn ewes \$8.25 to 8.75. The

net loss for the month was 70 cents on wool lambs, 50 to 75 cents on shorn lambs and around 50 cents on sheep. Spring lambs encountered the largest net loss, but such a trend was anticipated because the few of those offered in March sold on the basis of the Easter trade.

The April marketing went a long way towards reducing the supply of winter-fed lambs. Increased numbers were shorn as the month advanced, and of the remaining supply to come in May only a small per cent will be in full fleece. Fed lambs should be cared for easily. Less than 25 per cent of the spring lambs were unmarketed from Arizona at the close of the month. However the vanguard of the Kentucky, Tennessee, and Virginia lambs began to show up at eastern markets, and that movement will be fairly well established by the middle of May. Only limited supplies of California lambs have reached central markets, whereas a year ago the close of April saw a heavy movement. Native spring lambs in this trade territory will not move in any material supply before early June.

Within the next thirty days classifications on offerings will undergo a considerable realignment. Winter-fed lambs will pass into the yearling class, yearlings into the two-year-olds, and spring lambs will drop the qualifying term of spring and become the straight lambs. Some price readjustments will also be made on this basis due in a large measure to the relative supply of each particular class.

April receipts totaled 216,772 sheep, 63,000 more than in April last year and the largest in any April since 1914. In the four months 618,795 were reported, or 72,000 more than the four months last year and the largest since 1914.

C. M. Pipkin.

ST. JOSEPH

SHEEP receipts for April were 179,494 compared with 154,325 the same month a year ago, and 5,935 more than last month, which was the previous high record for one month. The market for fed lambs during the month was very uneven, starting with a top of \$16.75, advancing to \$17.90 on the 18th, then declining daily to \$15.70 on the close. Spring lambs, most-

ly from California, were coming freely the last twelve days and these show a drop of \$2.00, the first selling at \$19.25 with \$17.25, the closing top. Best clipped lambs sold at \$14.75 on late days. California feeders sold late at \$14.50, and cutouts from feed lots up to \$15.25. Aged sheep close around \$2.00 lower; wool ewes on the close were \$9.00 and clips \$8.00. Clipped wethers sold late at \$9.60, two-year-olds at \$10.50 and yearlings around \$14.00.

H. H. Madden.

DENVER

FAT lambs were about \$1 a hundred-weight lower at the end of April than at the beginning of the month at Denver, as at all other markets. Offerings in the sheep barns were quite liberal during the month. Receipts totaled 173,247 head as against 164,796 head in April, 1928. The average quality of the lambs was good, although buyers complained that the lambs coming to market during the month did not kill out as well as those marketed a year ago. This was due, no doubt, to the fact that the winter was severer in northern Colorado, where the bulk of the lambs were finished, and the stock did not put on as good a finish.

While the market was fairly active from day to day, the trading was slow at times, and often it was late in the afternoon before the stock was sold.

Choice fat lambs were selling early in April around \$16 to \$16.25. By the middle of the month they had gone to \$17.25, while choice quality California spring lambs sold up to \$18.50. However, a drop in the market late in April resulted in fat lambs selling at the close at \$15 to \$15.25, while best California spring lambs were quoted on the closing session from \$16.50 to \$17.

Heavier supplies of California and Texas spring lambs than the trade expected on all markets were responsible in some measure for the break in values late in April. California is moving lambs marketward in large volume now and the run will continue for the next several weeks.

SOUTH SAN FRANCISCO

THIS market experienced an entire change in character of supplies at the opening of April. Receipts consisted almost entirely of California spring lambs (new crop basis) totaling 20,350, of which 13,360 head were consigned direct to packers. As the month went along "top quotations" declined steadily. They opened at \$16.00 per hundredweight and closed at \$14.00, representing a net loss for the month of \$2.00 per hundredweight in sympathy with dressed lamb values locally, the pelt situation and the influence of burdensome supplies which, of necessity, must be moved eastward. Local packers have stood under the situation all along and succeeded in moving some 15 to 18 carloads of express refrigerator carloads of California spring lambs to the Atlantic Coast markets during the month of April.

Wm. E. Schneider.

AROUND THE RANGE COUNTRY

(Continued from page 14.)

John Day

Cold northwest winds and very little moisture covers the weather for April. Our range is very dry at present (May 1) and short. We started lambing April 7 and will finish in a few days. I think we will save 100 per cent of the lambs, but the grass is short and the weather not very good. We are just about out of hay. Our lamb crop will be smaller than usual by about 25 per cent. A good many old ewes died during the winter and there were a lot of dry ewes.

I should like very much to see wool sold on its merits.

B. C. Herburger

WASHINGTON

Cool weather with some deficiency of moisture has produced a backward season. Grass is growing slowly, and only part of the livestock have been turned out to graze, chiefly in the western portion. The feed problem was becoming serious in the eastern portion until the last week when range feed was becoming more available. Sheep shearing is well along in places. The weather has been unfavorable for pastures at Uniontown.

Pastures have shown little improvement at Walla Walla.

NEVADA

This has been a rather hard month on livestock, due to the effects of the prolonged winter on the animals, and to late, backward spring weather. Pastures and ranges however have made some improvement in the past week. Livestock average in only poor to fair condition. Shearing has been delayed and lambing hampered by weather conditions. Hundreds of sheep have perished from cold weather and the lack of feed in Elko County. Ranges are fair and shearing is in progress with a good wool yield in Clark County. Livestock are being turned onto the lower ranges in Lyon County.

Battle Mountain

This is the roughest spring that we have had for a number of years—blustery and cold—and this year will show a greater loss in ewes and lambs than the sheepmen have had since 1920-21. At this time (April 7) there is no feed on the range.

About 90 per cent of the lamb crop, which is smaller than normal, has been signed up at 10½ to 11½ cents for wethers. Some of the early lambs were contracted at 12½ cents.

Most of us feel that there should be a more orderly way of disposing of our wool.

Sheepmen generally in this section are not satisfied with the work of the Biological Survey in handling the predatory animal problem and think that Nevada should have a law similar to that now in operation in Utah. Cattlemen, however, are opposed to any special tax on their stock for this work.

Bankers are willing to loan about 50 per cent of the value of sheep at 8 per cent.

A few of us have been experimenting with early lambing in this district and have appreciated very much the two articles relating to the subject that have lately appeared in the Wool Grower. The Nevada sheepmen have trusted to Providence so long that it is hard to convert them to the policy of feeding sheep. But with this spring's sad experience, we shall feed earlier and much later another year.

Myron Clark.

UTAH

A cold, wet backward spring has been unusually hard on livestock. Very little new grass or browse was available on May 1, and cattlemen and flockmasters were in a great stress of spring activity. Losses have been heavy in places, both among cattle and sheep, particularly lambs and shorn sheep. Most flocks and herds have left winter range areas. Range sheep wintered well at Duchesne, and shearing is well along in eastern Utah, but shearing has been greatly hindered in western Utah. Flocks show the effects of a hard winter at Manti. Fleeces are much cleaner than for many years at Modena. Heavy lambing losses occurred at Kanab, range cattle and sheep losses continue; moisture is badly needed there and elsewhere over southern countries. Dead livestock appear all over the Government Creek range, this being reported to be the worst season in twenty years.

COLORADO

The season is a week or two late on the western slope, and somewhat retarded east of the main range. Ranges are improving generally, but need moisture rather badly in the southeastern portion. Livestock are mostly in fair to good shape, except that sheep are thin in the southeast. Shearing was delayed in western valleys by inclement weather. Lambing is nearly completed in the southeastern portion.

Mt. Morrison

We have had a severely cold winter and a wet spring. April was stormy all through; feed prospects on the spring range are good, however.

The lamb crop is larger this year by 5 per cent. More ewes were lambing and the ewe loss was about average, 4 per cent.

Most of the men here are in favor of cooperative handling of the wool clip.

Sentiment here approves the leasing or permit system for public domain grazing.

Sheep loans are being made at 8 per cent.

Paul V. Patridge.

Meeker

This has been an expensive winter for the sheepmen of this district, but the

losses have not been very high up to the present (April 11), and the great quantity of snow we have had should insure good feed on the spring ranges.

Our ewe bands were about as large as usual, but I do not believe our lamb shipments to market will be so large as in other years. No contracting on lambs has been done yet.

Opinion is divided on how the wool clip should be marketed. The older men adhere to the present methods, and the newer men approve of consignment.

Most, but not all of the sheepmen are in favor of federal regulation of the use of the open government lands.

Bankers have been loaning \$6 a head on bred ewes, the interest rate being 8 per cent.

M. J.

Haswell

We had two good rains during April and the grass is growing nicely. All sheep are in good condition but the winter expenses have been twice those of an average year. Ten per cent is the estimated loss in ewes during the past season for sheepmen generally; my loss was about two per cent.

Lambing is not far enough along to figure how large the crop will be. About the usual number of ewes were bred.

I think nearly all of the wool grown in this section will be sold at home.

The interest rate on sheep loans is 10 per cent.

C. H. Davis.

ARIZONA

Temperatures have been below normal and the season is a little backward. The grasses and browse on the range is especially backward in many areas because of the lack of moisture, combined with cool weather. During the last week both pastures and livestock deteriorated, and rains and warm weather are generally needed. Sheep are now moving to their annual summer pastures, in pretty good condition. The range is poor at Prescott and livestock are poor at Seligman; at White-river livestock are poor, but the range is good.

Concho

April weather has been fair and spring feed is very good on the range. The loss

in ewes this winter is estimated to be lower than in previous years. Our lamb crop is larger than usual. Not much activity in wool.

Santos Candelaria.

NEW MEXICO

Cool weather has prevailed, with a considerable amount of frost. Rains have been few and far between, and consequently ranges are becoming greatly in need of moisture. The season is backward and the soils dry in practically all sections. Alfalfa and pastures are slow in the northern portion especially, but livestock generally over the state are in fairly good shape. Pastures are starting and livestock are excellent at Morarity. Ranges need moisture greatly at El Paso and Roswell. Pastures are poor at Chacon.

Tucumcari

Early spring weather was good in this locality, and at present, April 1, the grass is starting on the spring range.

We will have more lambs than usual to move this year, but practically the entire crop is contracted at 12 cents a pound.

Our wool sells too cheaply in this country and the growers would like a change in the method of marketing it, but no plans or ideas have been advanced as to just what this should be.

The amount the banks will loan on ewes depends on the owner, but it is usually about 75 per cent of their value. The interest rate is 10 per cent.

G. A. Eager.

CALIFORNIA

This was a normal and fairly good month among livestock and ranges generally over the state, pastures making good progress and livestock making satisfactory gains. North winds were drying pastures and ranges in Tehama County May 1, and rain was needed at Nevada City, Jackson, Placerville and Santa Barbara. Livestock were still good however.

Williams

It has been cold and dry during the past few weeks and the spring range (April 28) is in very poor condition. We have our own winter range for 3000 ewes and have tried to get summer range on government land, but it seems that

farmers and the men who own no land get the preference.

More ewes were lost this past winter and spring than in other years; we estimate the loss at 8 per cent. The lamb crop is about the usual size; about 2 per cent more ewes were bred in this section.

Eight per cent is the prevailing rate of interest on sheep loans.

Blevins & Blevins.

WESTERN TEXAS

Seasonal temperatures were the rule, with occasional well distributed showers. Vegetation has thus made satisfactory

development, and livestock are in fair to good condition generally, a few being excellent. Rain would help a little in places, especially in the southwest.

Ozona

Range conditions are good in this country, and there should be an excellent wool clip this spring as all the sheep have wintered well. At present (April 16) no wool has been contracted; some mohair has sold at very satisfactory prices. Seventy per cent of our mutton lambs are sold and contracts are being made over the territory at 11 cents a pound.

T. A. Kincaid.

Del Rio

April has been exceptionally cool with very little rain. Feed on the range is above the average but needs rain.

Our losses, about two per cent, were lower than usual this season, and 10 per cent more ewes were lambbed; our lamb crop is larger by about 20 per cent.

Eight per cent is the prevailing interest rate on sheep loans obtained through banks; 7 per cent is charged by wool companies.

W. C. Hodge.

Palestine

Sheep around here are a pretty new thing generally and as yet are only few in number and then only in small farm flocks. Mine are doing very well and I hope to increase my band this year.

The grass came very well this spring and there has been sufficient rain to keep it growing for some time.

Our lambs came in January and February with practically no loss. Our ewes are being sheared now (April 27), but no wool has been sold yet.

R. M. Spence.

Talpa

The weather through March was very favorable for all classes of livestock—plenty of moisture and no excessive cold. Practically all range stock were cut off from feed about March 20.

Sheep have wintered well, with almost no losses and the feed bill below average. At present (April 29) the ranges are in excellent condition, with an abundant weed crop and plenty of moisture.

The number of ewes lambbed in this section is about as usual, perhaps a little larger than last year's. Spring lambing has been unusually good, but those who lambbed in January and February had heavy losses. I suppose the crop would average a little above normal.

I think more lambs will be shipped from here this year than were shipped in 1928. Very few lambs have been sold by contract; the price for those to sold was \$6 per head for mixed ewes and wethers.

We have no wool selling organizations in this part of the state, but pool our wool each spring and have a sale day.

J. L. Keese.

Rambouillet Ewes For Sale

Feed and Range Conditions Make It Necessary for Me to Dispose of a Part of My Ewes—Even if I Have to Shade Prices.

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Mr. Sheepman: Are You Tired of Spending All of the Proceeds of Your Wool and Lambs for Expenses?

If you owned the Disaster Peak Ranch in Southern Malheur County, Oregon, you could run an April lambing outfit of 4,000 or 5,000 ewes on the proceeds from their wool and have your lambs for profit. This ranch is about 200 miles Southwest of Boise, Idaho and about 80 miles North of Winnemucca, Nevada, which is the nearest railroad point. It comprises about 2,000 acres under fence and puts up 800 to 1,000 tons of wild hay. McDermitt Creek flows through it and furnishes abundant and free water. Ranch controls several townships of outside range, some of which is 8,800 feet in elevation. Ranch will be sold for one-half its former value. \$7,500 cash will handle. Balance in ten annual payments with 6 per cent interest.

For Further Information Write

RANDALL SAGE

McDermitt, Nevada

MINERAL FEEDS FOR SHEEP

(Continued from page 22)

a laboratory for examination for worm eggs, is the simplest way to be sure of the worm question. Any other method is guesswork.

Effective Way to Treat Worms

If we find, by such an examination, that a certain bunch of sheep are really suffering from worms, then that bunch must be hand treated with a real worm medicine. I want to repeat that there is not, and never has been, any effective treatment for worms in sheep that can be fed in salt, or mixed with grain or administered in any such manner. And this is true of horses, cattle, or hogs.

There are plenty of men who swear by certain worm remedies, such as tobacco, sulphur, copperas, etc., but cold-blooded tests on wormy sheep with these remedies, followed by post-mortem examination of the treated sheep, show these compounds to be about ten per cent effective.

In some farm flocks worms are a real problem, principally due to the fact that the sheep are constantly grazing over the same ground again and again. In Texas, where the sheep stomach worm is quite a serious thing, there were a lot of these patent worm remedies being sold to sheepmen. The Texas Experiment Station finally offered these outfits a chance to try out their products in open competition, and ten of the firms accepted. Each firm was supplied eleven wormy sheep from one bunch, ten of which were treated by the salesman who recommended and sold the remedy. In ten days after treatment, all the sheep were killed and examined. Nine of the ten remedies made a complete failure, there being as many live worms in the ten treated sheep as there were in the one sheep that was not treated. The tenth remedy, which had been developed by workers in the Department of Agriculture, was completely successful. Yet all these absolutely worthless worm remedies had been sold with the highest recommendations and guaranties to sheepmen all over Texas.

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COMPETITION

ARE two railroads better than one? Is unlimited competition more important to the public than the building of a strong, financially sound transportation structure?

Mr. C. D. Morris, assistant to the chairman of the Western Railways Committee on Public Relations, addressing the Down Town Association of San Francisco, March 21, said:

"There is a mistaken idea among some that what a community needs is competition between railroad companies. It is difficult to understand this conception of our needs. In a country like ours, where the railroads are completely regulated and controlled by the Government, a community is as adequately served by one railroad, providing its facilities are modern, adequate and up-to-date, as it could possibly be by a half dozen.

"To build additional lines when they are not necessary to handle the traffic of a community but adds to the expense of caring for the traffic needs of the community and is reflected in a loss of earning power on the part of the railroad the community already has and leads ultimately to the impairment of service. The one thing above all others that has enabled American Railroads to keep out of the bankruptcy courts in the past decade has been the elimination of waste through the more intense use of the facilities at their command."

Duplication of railway service by construction of unnecessary new lines is an added financial burden which eventually must be borne by the shipper and the public.

SOUTHERN PACIFIC

SHEEP DOGS

For sheepmen large and small. Avoid that sheepdog disappointment by the use of the White Collie. Our dogs have been selected exclusively for sheep work years and years. Lots of our pups have worked without any training at all. Don't take our word just write for a list of sheepmen that are using our dogs, and be convinced to your own satisfaction. Pups two months old \$10 to \$20.

ALVIN C. SKRETTEBERG
Shadehill, So. Dakota



SOLANO CORRIEDALE RANCH
R. W. JICKLING—Elmira, Calif.

Wool

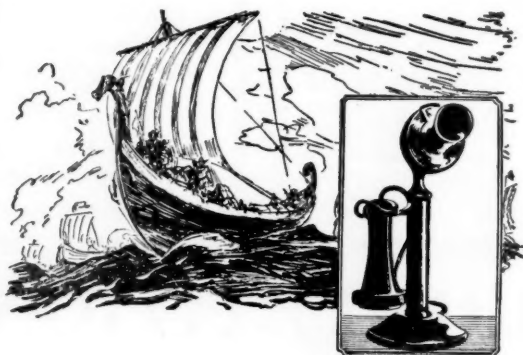
BLANKETS and Colonial Coverlets. Made from your own wool. Also sold direct from the mill if you have no wool. Beautiful goods that give satisfaction and long wear. Write for catalog and samples. Prices reasonable.

WEST UNITY WOOLEN MILLS
132 Lynn St. West Unity, Ohio

SHEEP FOR SALE

We can furnish aged ewes with March black-face lambs for May delivery, and some right good yearling and two-year-old ewes, also a bunch or two of extra good ewes of mixed ages.

DAYBELL SHEEP COMPANY
PROVO, UTAH

**Adventure**

Norsemen of old roamed the seas and boasted of the strange lands they saw. Today's discoveries and developments in telephony would make the Viking gasp with wonder.

In the Bell System Laboratories in New York, over 2,000 scientists conduct daily search to find new methods to improve your telephone service. Theirs are intellectual adventures which have led to today's remarkable discoveries in the telephone industry.

**THE MOUNTAIN STATES
TELEPHONE & TELEGRAPH CO.**

What Mixtures Cost

Let us look at these mixtures now from the point of their cost. I have a mixture in mind, that recently sold quite widely in the state. It retailed here at \$6 per hundred. It had a complicated formula and a long guaranty. I was offered, by this company, a commission of \$2 per hundred for selling it. That leaves \$4. Freight on this product, made in Indiana, was around \$2 per hundred. That leaves \$2 in the sack. The company had to make a little profit and besides there was advertising, office expenses, and mixing and manufacturing costs, and the price of the sack, all of which would certainly use up another dollar. That leaves \$1 for the contents of the sack. And what, in this day of high prices, can you buy at \$1 per hundred pounds? You can't get good salt for that price. What then did we get for our \$6? Nothing but the sack and some experience.

If there is a stock tonic made that will produce more wool and more lambs, by all means buy it. But before you buy it, get some sort of proof that it will produce more wool and lambs. The salesman's argument doesn't prove anything. Get some proof. Get him to show you the wool weights and lamb weights from a properly conducted feeding experiment, so that you can check up on this product. If a stranger buys a load of lambs for you, and pays with check or draft, you very properly wire his bank before he loads his lambs. No one takes offense at this, it is just plain business. Why

Home Comfort Camp
The Gold Medal Winner

Shipped Knocked Down. Easy to set up
Built By
Sidney Stevens Impt. Co., Ogden, Utah

not use the same business judgment in buying a carload of somebody's wonder working sheep tonic. Get a sample of his product. Have it analyzed, get some proof of the value of his goods. If this stuff will not hold your money together, why fool with it? Yet I have known old hard-boiled shepherds, men who were tough traders on any kind of a sheep deal, to buy a carload of dope at \$80 a ton that wasn't even a good grade of salt. I can't get it, unless it is that they believe in miracles.

I believe I am correct in saying that no curative or preventive measure for the ailments or diseases of animals has ever been developed by an individual in private life or by a commercial company. Especially is this true in this age of specialization. Methods of controlling or preventing animal diseases, whether nutritional, parasitic, or infectious in nature, that have stood the test of time, have been developed by state or federal experiment stations or similar organizations. And although it is true that there are many diseases and conditions of live-

stock that such organizations have not been able to remedy, it is also true that no one else can remedy them either.

A Suggested Tonic

Personally, I have always felt that if sheep have good hay, and plenty of water and salt, they shouldn't be doped and treated and filled up with all sorts of concoctions. Unless they need some definite treatment for some recognizable disease or ailment, leave them alone. But many men feel that possibly the sheep ought to have something, just what, they don't know, but they ought to have something in the line of a tonic. To them I would suggest the following: Take one sack of bonemeal, two sacks of salt and one ounce of potassium iodide, and mix them. This is a mixture that will never be advertised, is not guaranteed, and will never be offered to you by a salesman, but is nearer what sheep need in Montana than anything I have ever seen sold here.

It will cost \$2.50 per hundred pounds at the ranch, it has no perfume, no color,

no formula, no guaranty, no one urges you to use it, but according to food, water and soil analyses, it will do all that can possibly be done for sheep. And in areas in Montana where phosphates and iodine are deficient, such a mixture will more than pay its way.

You men that have marketed wool and lambs year after year, know that some years your lambs are better, some years they are worse; some years the ewes shear a pound or so more than the year before. How then can you judge the effect of a sheep tonic? How is a man going to be sure that a mineral mixture did or did not pay for itself? The only way to prove this is to run two bunches of ewes, of exactly equal quality, size, and type, on the same food and water, and to feed this dope to one bunch and not to the other. In the spring, compare the wool weights, the number of lambs, and the lamb weights at shipping time, of the two bunches. Unless the mineral mixture produced enough more wool and lambs to more than pay

MT. PLEASANT RAMBOUILLET FARM



"COOLIDGE"

Many times winner and champion. Grandson of "Old 467"

Grand Champion Ram at Utah State Fair in 1928.

Grand Champion Ram and Grand Champion Ewe at Ogden Stock Show 1929.

We have averaged the highest price at the Great Salt Lake Ram Sale the past five years.

We are constantly improving our flock.

We are offering special prices on ewes, in carload lots.

Our 1929 rams are now ready for sale. Better than ever.

We Solicit Correspondence

JOHN K. MADSEN, Prop.

Mt. Pleasant, Utah

P. O. BOX 219

Home of "I AM"—the \$2,000 Lamb

PHONE 174

DAY FARMS COMPANY

PAROWAN, UTAH

Breeders of Rambouillet Show Sheep
We do not feature a show flock, but we win wherever we show.

April, 1926—We trucked 6 head to Salt Lake show and won three firsts out of four that we competed for.

September, 1928—We trucked 8 head to Sanpete County show and won three firsts out of five we competed for.

Our Winnings in Southern Utah
Rambouillet Shows:

1928—Three firsts, five seconds, three thirds.

1927—Nine firsts, five seconds, two thirds, two grand champions.

1926—Six firsts, five seconds, three thirds, one grand champion.

IF YOU LIKE FINE WHITE LONG
STAPLE CRIMPY WOOL, GOOD
HEAVY BONE, LEGS SET WELL
APART, STRONG BACKS: WE
GROW THAT KIND.

Wilford Day
Pres. and Mgr.

W. S. Day
Sec'y and Treas.

**DEER LODGE FARMS
COMPANY****RAMBOUILLETS**

Range Rams Our Specialty

We believe that the big ram with a long staple fleece that has density and fineness and is free from body wrinkles and kemp is the ideal ram for the range.

If that is the kind of Rambouillet ram you like, see ours.

PUREBRED RANGE RAMS

REGISTERED STUD RAMS

Small orders or carload lots

**DEER LODGE FARMS
COMPANY**

Deer Lodge, Montana

for itself, then it is worthless to you as a sheep food.

Of course, no sheepman can fool with such an experiment. But if this wonder working mixture from Quincy, Ill., has any real merit, the company producing it will have those figures to show you. Testimonials, guaranties, recommendations from men you never heard of, what do they amount to?

It may be that some company will discover a sheep tonic that will produce more wool, more lambs, and double the life of the ewes; we certainly hope so. But such a compound will have to be built on very different lines from the preparations that have been offered to sheepmen during the last ten years.

ON A PENNSYLVANIA FARM

The fact that sheep, man's oldest and best friend, are truly the animals with golden hoofs, was brought home to me recently when I sold a carload of 79 bred, coarse-wooled ewes to the Isla Corporation, near Easton, Maryland, for \$1580.

Four years ago this spring, my father, the late W. S. Moore, a central Pennsylvania stock dealer, died. At the appraisal of personal property his 26 stock ewes were valued at \$10 a head. I purchased them at this figure, launching into the sheep business with an initial investment of \$260.

During the four intervening years I sold four crops of lambs and wool valued, conservatively speaking, at \$1,000. Each season I followed the practice of culling out aged ewes and renewing the flock with ewe lambs. By March, 1929, I had developed the drove to 79 head, selling them for \$20 each.

The total receipts from the original flock in the four-year period were \$2320. Had I not kept the original 26 ewes, it is very probable I would be "in red" about this sum today.

Sheep raisers residing in Shavers Creek and Stone Creek valleys, Huntingdon County, Pa., held an interesting meeting recently. William Connell, a representative of the Extension Department at the Pennsylvania State College, gave a very instructive talk on various phases of the sheep industry, illustrating it by lantern

SHEEP

18,000 head good, big, smooth type, well bred Rambouillet yearling ewes for sale out of the wool—June 1st delivery.

SHEEP

JESS ELROD, San Angelo, Texas

MANTI LIVE STOCK COMPANY

MANTI, UTAH

Founded in 1907 From Best Rambouillet Flocks in America



BREEDERS OF RAMBOUILLET SHEEP

KING BROTHERS COMPANY

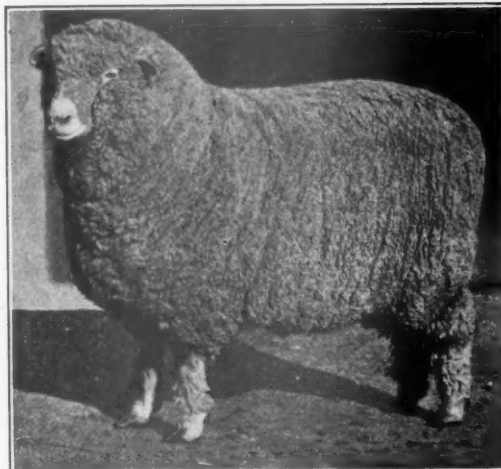
LARAMIE, WYOMING



Champion B Type Rambouillet Ram at American Royal, 1928, and Champion at Chicago International, 1928.



Breeders of
Rambouillet
and
Corriedale
Sheep



Champion Corriedale Ram at American Royal and Chicago International, 1928.

OUR PRINCIPAL 1928 SHOW WINNINGS

At the Chicago International: Rambouillets, 1st and 5th on Aged Ram, 2nd and 4th on Yearling Ram, 2nd and 8th on Ram Lamb, 3rd on Yearling Ewe, 2nd on Ewe Lamb, 1st on pen of three Ram Lambs, 3rd on pen of three Ewe Lambs, 1st on Flock and Champion Ram.

At the American Royal: B Type Rambouillets, 1st on Aged Ram, 3rd and 6th on Yearling Ram, 2nd and 4th on Ram Lamb, 2nd on Yearling

Ewe, 1st and 2nd on Ewe Lamb, 2nd on pen three Ram Lambs, 1st on pen of three Ewe Lambs, 1st on Flock, Champion Ram and Champion Ewe.

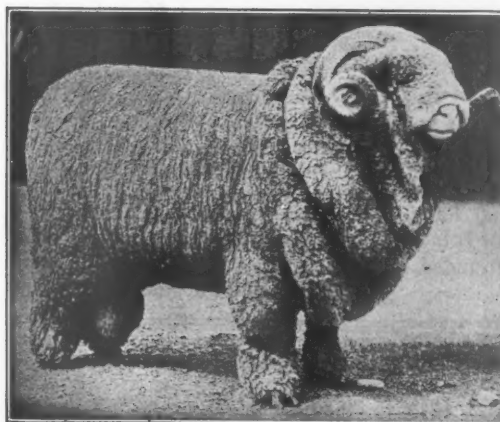
C Type Rambouillets, 1st on Aged Ram, 1st on Ram Lamb, 1st and 2nd on Ram Lamb, 3rd and 5th on Yearling Ewe, 3rd and 7th on Ewe Lamb, 1st on pen of three Ram Lambs, 1st on pen of three Ewe Lambs, 1st on Flock, and Champion Ram.

Corriedales, all awards.

STOCK OF EITHER BREED SOLD SINGLY OR IN CAR LOTS

CANDLAND RAMBOUILLETS

Noted for
Size and Bone



Noted as Heavy
Shearers of Fine
Staple Wool

Taxpayer—Champion Ram, Utah State Fair, 1926-1927.

Following is an unsolicited letter from a man who bought 100 registered Candland Rambouillet yearling ewes:
Dear Mr. Candland:

My ewes sheared approximately 18 pounds per head. The 97 head sheared 1,711 pounds. Several of them went above 20 pounds and one sheared 24½ pounds. I think they made a good turnout. Some of the February lambs weigh as much as 140 pounds. I intend to breed two of them to a few ewes this fall.

With kindest regards and best wishes to you all, I remain

Yours truly, Robt. J. Manning

Mr. Sheepman: Do you want to increase your profits? If so, use **CANDLAND RAMBOUILLETS**

W. D. CANDLAND & SONS, Mt. Pleasant, Utah

WM. BRIGGS & SON

DIXON, CALIFORNIA

We produce
a high type
of Ram-
bouillet.



A choice lot
of ewes and
rams for
sale at all
times.

Briggs 1144—Yearling Rambouillet Ewe. Grand Champion Rambouillet Ewe at California State Fair, 1927.

BULLARD BROS.

WOODLAND, CALIFORNIA

Breeders of Fine Wool Rambouillet Sheep



"Senator"—Bullard Bros.' Yearling Rambouillet Ram—Reserve Champion Ram of the 1928 Chicago International Live Stock Show.

Flock Founded in 1875

Correspondence Solicited

F. N. Bullard, Manager

CRANDELL'S PRIZE SHEEP

AMERICA'S CHAMPION FLOCK OF LINCOLNS AND COTSWOLDS

Winners of 33 Champions at Utah State Fair and Fat Stock Shows

ONLY FIVE LOST IN FOUR AND ONE-HALF YEARS

Not How Many But How Good

Bred Ewes, Ram Lambs Delivered at Ogden, January 1.

Write or Wire Your Wants

HARRY T. CRANDELL

Box 477

Cass City, Michigan

slides. Pictures of individual flocks, representing practically all the principal breeds raised in America were shown, and the points in which they differed pointed out.

Delaine Merinos are favored, according to Mr. Connell, in this section of Pennsylvania, the fine-wool area of the Keystone State, because three Merino ewes will thrive on the same acreage required for one large, coarse-wooled ewe. The fine-wools are also peculiarly adapted to hill regions. They thrive particularly well in the blue grass summit of southwestern Pennsylvania and the adjacent sections of West Virginia and Ohio.

Mr. Connell explained in detail the nature of such sheep ailments as stomach worms, the nodular disease, foot rot, paralysis of limbs, scabby mouths and legs, as well as external parasites. He advised farmers to club together and buy a dipping tank, then place their sheep in a solution twice each year.

Neffs Mills, Pa. Wm. Gregory Moore

FEDERAL LIVESTOCK ECONOMIST TO HEAD RESEARCH OF FARM COOPERATIVE

H. M. Conway, livestock economist Bureau of Agricultural Economics United States Department of Agriculture, has resigned to take charge of an economic research department being organized by the National Live Stock Producers Association, which is composed of twelve livestock selling agencies on the leading terminal markets.

Mr. Conway has been connected with the livestock, meats and wool division of the Bureau of Agricultural Economics for six years, during which time he has made special studies of livestock production and marketing trends, cycles and seasonal changes.

Organization of economic research departments by farmers' cooperative associations, marks the latest advance in the merchandising of farm products. Many of the large cooperative associations marketing cotton, fruits, dairy and poultry products have organized such departments for the study of production and marketing problems so as to formulate merchandising and price policies.

POLLED RAMBOUILLETS



1929 OFFERINGS

400 Yearling Rams
200 Yearling Ewes

Limited Number of Stud Rams.

W. S. HANSEN COMPANY
Wynn S. Hansen, Mgr., Collinston, Ut.

ROMNEYS

Results of three outstanding New Zealand Importations

HAMPSHIRE

Consistent High Quality Breeding

SOUTHDOWNS

University of California and Kentucky Ewes

BROWNELL RANCH

W. R. Hosselkus - Woodland, Calif.
E. E. Brownell - 3696 Clay St., S. F.

DELAINE MERINOS

BIG SMOOTH ONES

The Ideal Wool and Mutton Combination

RAMS or EWES

One or a Carload—Shipped Anywhere on Approval
FRANK H. RUSSELL, WAKEMAN, OHIO

All Aboard for California!

5 Stud rams from our flock are going to the California Sale to please the breeders of that State. They are prepotent sires, bred to carry on the true type of

HAMPSHIRE

Thousand Springs Farm
Wendell, Idaho

Minnie Miller,
Owner

Jesse Loader,
Shepherd

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of National Wool Grower, published monthly at Salt Lake City, Utah, for April 1, 1929.

State of Utah }
County of Salt Lake } ss

Before me, a notary public, in and for the State and county aforesaid personally appeared F. R. Marshall, who, having been duly sworn according to law, deposes and says that he is the editor of the National Wool Grower, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, National Wool Growers Association Company, Salt Lake City, Utah.

Editor, F. R. Marshall, 509 McCornick Building, Salt Lake City, Utah.

Managing Editor, None.
Business Manager, F. R. Marshall, 509 McCornick Building, Salt Lake City, Utah.

2. That the owner is National Wool Growers Association, an unincorporated body, of Salt Lake City, Utah. (F. J. Hagenbarth, president, and F. R. Marshall, secretary), and thirteen state wool growers' associations, all unincorporated.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are none.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

F. R. Marshall.

Sworn to and subscribed before me this 28th day of March, 1929, C. W. Collins,
Notary Public.

(Seal) My commission expires May 10, 1929.



NEBEKER'S RAMS
HAMPSHIRE

1929 Offerings:

300 Yearling Rams
300 Ewes—All Ages
300 Ram Lambs

Limited Number of Stud Rams

J. NEBEKER & SONS
STOCKTON, UTAH

HAMPSHIRE

We have for sale this season:
700 head of yearling rams
Several cars of big ram lambs
Also several cars of ewes

Cambridge Land and Livestock Co.

Breeders of Purebred and Registered
Hampshire Sheep
CAMBRIDGE, IDAHO



Idaho has more good Hampshire flocks than any other state.

FINCH stud rams more than any others are used as flock headers among Idaho Hampshire flocks.

THE REASON:
QUALITY Without Overfitting
H. L. FINCH
Soda Springs, Idaho

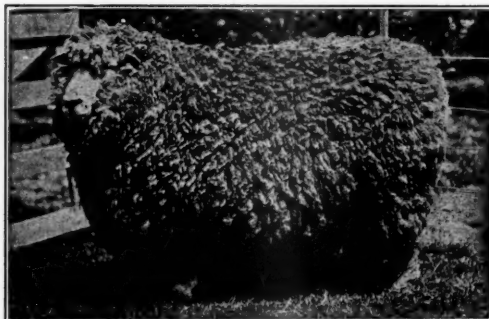
ROMNEY SHEEP

Flock Masters!

New Zealand can supply your needs in this direction.
Our Romneys hold the world's Championship.

Do you want to get
the best possible re-
turn per acre from
your flock?

**IF SO, USE
ROMNEYS!**



A Typical New Zealand Romney Ram

Do you want to get
top market price for
your Meat and Wool?

**IF SO, USE
ROMNEYS!**

Send for literature

New Zealand Romney Sheep Breeders Association

The Secretary—P. O. Box 40, Feilding, N. Z.

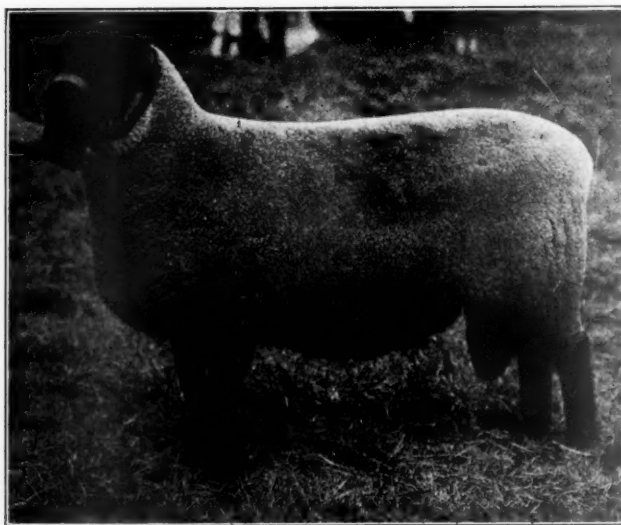
(INCORPORATED)

SUFFOLKS LINCOLNS PANAMAS

In Lincolns and Suffolks we
have yearling rams and ram
lambs, breeding ewes and ewe
lambs.

In Panamas we have year-
ling rams and ram lambs.

Write or Wire, for Prices



One of My Suffolk Stud Rams. Champion At the Royal
Agricultural Society Show in England, 1927

EUGENE PATRICK

CULLEN HOTEL, SALT LAKE CITY, UTAH

SHEEP BREEDERS' ASSOCIATIONS FLOCKS ADVERTISED IN THIS ISSUE

American Cotswold Registry Association

Write for list of members and breeders. If you have registered Cotswolds to sell, or wish to buy and will state what you have or want, will try and assist you or give you desired information.

F. W. HARDING

Secretary
Purebred Record Bldg.,
Stock Yards, Chicago, Ill.
D. C. LEWIS, President

SHROPSHIRE PRODUCE 'EM THE SMALL LAMB

is the only one that will bring the top price when it reaches the high class market.

Even the great West is learning this important lesson. Write for printed matter.

American Shropshire Registry Association

Lafayette, Indiana

8,150 Members Life Membership \$5.00
W. F. RENK J. M. WADE
President Secy.-Treas.



DID YOU KNOW?

That the Hampshire Sire will give you market lambs in 100 days. Let us tell you about it.

We have a delightful little booklet and a classified list of breeders for you. They are yours for the asking. Write the Secretary for what you want.

AMERICAN HAMPSHIRE SHEEP ASS'N.

HENRY C. BARLOW, President
McKinney, Texas
COMFORT A. TYLER, Secretary
72 Woodland Ave., Detroit, Mich.

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1 inch, 1 column wide.....	\$ 2.00
1/4 page	14.00
1/2 page (1 column).....	18.00
1/2 page	26.00
1 page	45.00

Single column width, 2 1/2 inches—single column depth, 9 5/8 inches. Three columns to a page. Copy must be received by the first of the month in which it is to appear.

Same rates apply for any number of insertions. Two per cent discount when paid by first of month following publication.

Commercial advertising rates on application.

MERINO SHEEP

Excel all breeds in wool production and hardiness.

Write for booklet and list of breeders.

THE AMERICAN AND DELAINE MERINO RECORD ASS'N.

Gowdy Williamson, Sec'y.
Xenia, Ohio

American Rambouillet Sheep Breeders Ass'n

Membership Fee \$10—No Annual Dues. Flock Books Free to Members. Volumes XXII and XXIII are being bound together and will soon be ready for distribution. Pedigrees now being received for Volume XXV. Over 115,000 sheep on record.

President

John Ellis, Molino, Mo.

Secretary

Dwight Lincoln, Marysville, Ohio

For history of the breed, list of members, rules, pedigree blanks, etc., address the Secretary.

American Suffolk Sheep Society

Ralph Brough, Nephi, Utah - President

Incorporated and ready to accept applications for registration.

For copy of constitution and information regarding the breed, apply to

EUGENE PATRICK
Secretary-Treasurer

Cullen Hotel, Salt Lake City, Utah

American Corriedale Association

President, J. H. King, Laramie, Wyo.
Secretary, F. S. King, Cheyenne, Wyo.

For literature and application blanks, apply to Secretary.